Morbus Polyrhizos & Polymorphus.

A

TREATISE

OF THE

Scurvy.

EXAMINING

The different Opinions and Practice, of the most solid and grave Writers, concerning the Nature and Cure of this Disease.

Evicting considerable Errors, in the Theory and Practice, and determining the whole matter from the latest Experiments, and best Observations.

With a true account of *Tobacco*, relating to this Disease.

The fourth Impression corrected and augmented.

By *EVERARD MAYNWARING*
Doctor in Physick.

Whereunto is annexed

Pharmacopœia Domestica.

LONDON.
Printed by *J. M.* and are to be sold by *Peter Parker* at the *Leg* and *Star* in *Cornhill*, against the *Royal Exchange*, 1679.

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CHAP. I.

Denomination of the Scurvy.

Times and places have given several names to this Disease; proper and suiting with some *symptoms* arising from the *Scurvy*, that did chiefly and most frequently afflict the Patient, in those places, at such times. From hence I find a great dissent among *Authors* concerning the several *Appellations* and their *Etymologies*; questioning whether those several names did belong to one and the same disease, or divers: which occasioned several *Dissertations* and *Disputes* concerning the *essential causes* and manner of *generation*: And not only those that differ in the Nomenclature, do disagree as to the nature of this disease; but also others who agree in name, and allow its various dresses and disguises, yet dissent much in their *opinions* concerning the

nature and *generation* of it; that amongst so many *dissenters*, it is no easie matter to single out the Truth, and confirm it; as the following *discourse* will evidence the difficulty.

Diseases for the most part, have *significant* Names, whose *Etymology* discovers either the Nature of the Disease: as Hydrops, the Dropsie, from ὕδωρ; *Aqua*, Water: or, points at the part *principally* or *primarily* affected; at Pluritis, the *Pleurisie* from that *Membrane* compassing the Brest, called *Pleura*.

Or, intimates the manner of invasion; as Epilepsia the *Epilepsie*, from ἐπιλαμβάνω, *apprehendo*, to seize, or take suddenly.

Or, denotes the procuring cause; as *Lues Venerea*, the *Venereal Pox*.

Or, declares the manner of afflicting, as *Convulsion*, from *Convello* to pluck.

With many other, whose names do import and carry various significations *pertinent* and *declarative*, which for brevity sake I omit. That which I have particularly design'd to handle is the *Sorbute*, or *Scurvy* in the English tongue; but in other languages, denoting

denoting ſome part *ſymptomatically* affected: In the *Daniſh* 'tis called *Scorbeck*, ſignifying a vitious depravedneſs in the mouth, becauſe in many it was diſcovered by looſneſs of Teeth, and putrefaction of Gums, to which the *Greek* name agrees, Στομακακη. Others will have it an *Italian* word, deriving *Scorbeck* from Scornobocca, ſignifying a foul-mouth.

In the Low-Countries 'tis called *Scorbuyk*, ſignifying *Torſions* or gripings in the Belly, which attend this diſeaſe in ſome perſons.

It is alſo called *Scelotyrbe*, from the ſpots and pains in the Thighs: It hath been called by ſome *Gingipedium*, from the Gums and Feet, that frequently are affected in this diſeaſe.

The Latin word *Scorbutus*, now moſt frequently uſed among *Phyſitians*, being a name not of long ſtanding, and unknown to the *Ancients*; is therefore called by ſome a new diſeaſe, but not truly ſo: and it is not againſt Reaſon to think this diſeaſe to be of as great *antiquity*, as moſt *infirmities* incident to the body, (as may appear hereafter) though known by divers *appellations*, ſuting with ſome of the *Sym-*

toms, or *products* that follow this Diſeaſe; yet inſufficiently and eroneouſly diſcovered in their Cauſes.

Concerning the ſeveral Names, whether proper or improper, I ſhall not inſiſt on; the nature of the diſeaſe being the thing aimed at to be detected and proſecuted; and not to ſpend time upon words.

CHAP. II.

Antiquity of the Scurvy.

THe *Scurvy* which in former times lurked more privily and ſcarce known but to the moſt *acute* diſcerning *Phyſicians*, by reaſon of the diſguiſe and various *ſignatures*, *ſpecifick* and *individual*, in which *fallaciouſly* it appeared; is now unhooded, and ſo detected, that few there are, though ſtrangers to the *Diagnoſticks* of this Art, but may call it by its name, upon the *eruption* or appearance of moſt, if not any, of its *concomitant* uſual *ſymptoms*.

How

How this diſeaſe comes to be ſo familiar amongſt us in theſe latter years; and ſo much a ſtranger before, is not unworthy our labour to make enquiry into the matter.

For the *novelty* of this diſeaſe I find *modern* Writers pleading; ſome urging this argument, for that it hath not been known by this name but of late: as if its ſtanding and our underſtanding were coætaneous, and improved together to this height now arrived at.

Some will have it to be the offſpring of the *Pox*, and take its riſe from the year 1495, at the ſiege of *Naples*, from whence the *Pox* was firſt *introduced* into the world.

The *Argument* produced to father the Scurvy upon the *Pox*, is the *ſimilitude* and *parity* of the *ſymptoms* that accompany both, and therefore muſt needs be ſo near of kin; when it is hard to ſay, Whether ſhould bear the *denomination*.

But they will give me leave to think otherwiſe; that the Scurvy bears an antienter *date*, than either our knowledg of it under the *denomination* of the *Scurvy*; or the *riſe* of it from the year before-mentioned; or muſt con-

fine the *Scurvy* to a narrower compaſs and *latitude* than the uſual limits allowed.

But it is not my thoughts will prove the matter; I ſhall therefore give ſome Reaſons for my *Opinion*: and firſt I ſhall lay down this *Aſſertion* as the *baſis* to fix on:

That the Scurvy owns not one *univocal cauſe*, but is the Baſtard of many Parents, contributing to its *generation*, and hath its likeneſs *à fortiori in ſua generatione.*

Now if any can truly affirm that the Scurvy always appears *inveſted* with *pocky ſymptoms*, I ſhall aſſent to his *Opinion*, that the Scurvy is the *product* of the *Pox*, *in ſpecie & latitudine ſua*; but that it doth not, I think none will or can deny.

If *Diætetick* cauſes will procure the *Scurvy*, then it is moſt probable that the *riſe* and *antiquity* of the *Scurvy* depends upon the *antiquity* of thoſe cauſes: but, Abuſe, ill cuſtom, and neceſſitous bad living in *Diæteticks*, are of great *antiquity*; therefore the *Scurvy* may challenge a great *Seniority* in the world.

The *Suppoſition* is affirmed by the moſt,

moſt if not all, the *Inference* from thence is very rational: the *Aſſumption* is a general received truth: the *Concluſion* then will hold good.

Sennertus gives in his *enumeration* of *procatarctick* and remote cauſes of the *Scurvy*; *Cibus, potus, aer, motus & quies, vitæ genus, ſomnus & vigiliæ, animi pathemata:* Meat and drink, air, motion and reſt, manner of living, ſleep and waking, paſſions of mind, theſe we call *diætetick cauſes*: to which he adds, *Febres, viſcerum diſpoſitio, contagium: Feavers*, ill *temperature* of parts, *contagion*. And theſe alſo he reckons in the number of *Cauſes* that generate the *Scurvy*.

Greg. Horſtius aſſents to theſe, or the moſt of them: *Eugalenus* doth the like. *Sal. Albertus, Martinus, Brunerus, Ecthius*, and other eminent *Phyſicians*. And for ſome of theſe Cauſes the *Scurvy* is ſaid to be *endemical* in ſome Regions and Countrys; that is, from ſome common cauſe, as Air, Food, or Water, peculiar to that place, conſtantly promoting and diſpoſing to ſuch a diſeaſe. Now if the *Scurvy* hath dependance, and is procured by theſe cauſes which are *antique*, we may juſtly and

Greg. Horſt. Eugalen. Sal. Albert. Martinus Bruner. Ecthius.

rationally conclude, this diſeaſe to be antient alſo, and no new diſeaſe. And thoſe that *aſſert* this diſeaſe to be new, and of a late birth, do notwithſtanding *aſſign* ill diet, air, and bad cuſtoms, for cauſes; but theſe are no new *cauſes*; therefore no new *diſeaſe*.

Sennert. *Sennertus*, in his *Catalogue* of *Cauſes*, I told you, reckons *Feavers*, evil *diſpoſition* of parts, to be *remote Cauſes* of the *Scurvy*; and if the *Scurvy* ſometimes be the *relict* of ſuch Cauſes, we have no reaſon to think but the *Scurvy* hath been planted in the world much longer than to be called a *new diſeaſe*.

Now if long *Feavers*, *impreſſing* an ill diſpoſition upon the *viſcera*, parts *deſtinated* for *nutrition*, *introduce* the *Scurvy*; doubtleſs ſuch *Feavers* are not new: and then the *Scurvy* bears not long date after. And not only *Feavers*, but other diſeaſes may lay a ground-work for the *Scurvy*, having ſome *affinity* and *aſſociation* with all; no diſeaſe ſcarce comes amiſs, but the *Scurvy* is ready to join with it: few *chronick diſeaſes* go off, and many *acute* alſo but leave an evil *impreſſion* upon the parts, which is a *Seminary* for the *Scurvy*; except a *prudent Phyſician* have the charge,

charge, and a *tractable Patient* that will suffer him to *raze* out the *vestigia* and *characters* of the disease, not discernable by your sence.

But the custom is with the most to *dismiss* the *Physician*, so soon as the fear of *death* is past, or *afflicting symptoms* and *dolours* be ceast; committing the rest to Nature to work out, not thinking what is left behind; a *root* that will spring forth at a season and *opportunity* most agreeable for its *production*; and then you little think it is the *relict* of a former sickness, which by a prudent *Physician*, and your patience, might have been long since *eradicated*, and this *prevented*. But to return to our purpose:

Morbi Seminales suis temporibus prodeunt.

For the *Antiquity* of this *disease*. *Greg. Horstius* stands up. *Etsi Scorbuti nomen recens & veteribus incognitum videatur, res ipsa tamen antiquis fuit notissima.* Although, saith he, the name *Scurvy* be new, and seems to be unknown to the *Ancients*, yet the *disease* was known to them. *Sennertus* is of the same *opinion*, also *Reusner*, and *Langius*. By *Hippocrates* we may find this *disease* described; speaking of the *Ileos Hæmatites*, where he describes the *Scurvy*:

Greg. Horst. Tract. de Scorb.

Sennert. Reusner. Lang.

Hippoc. lib. περὶ τῶν ἐντὸς παθῶν.

Scurvy: And likewiſe treating *de magnis Lienibus* of great *Spleens*: but *Wierus* and others will not have theſe *deſcriptions* to agree with the *Scurvy*, becauſe ſome of the *ſymptoms* are wanting; which is very vain to *alledge*; for, in no caſe we ſhall find all the *ſymptoms* to appear: And the *Scurvy* is of that *latitude* and ſo *variegated* by time, place, and perſons, that it is not *included* and *limited* with ſuch a certain *combination* and number of *ſymptoms*, ſome of which being wanting, it loſeth the *denomination*. And *Salomon Albertus* is of that *perſwaſion* that the *Scurvy* was known to the *Antients*, for in his *Epiſtle Dedicatory* before his *Tract* of the *Scurvy*, he ſaith; *Et ipſe novus putatur, aſt perperam; quando natura ipſum non genuit noviter ſed redintegravit ſolùm, ac ceu interpolavit, idque ob aeris, aquarum, locorum, vivendique rationem, propter hominum temperaturam, à cœleſtium ſiderum influxu, ab ortuum obitumque radiis alteratam. Agnitus ille primum Hippocrati fuit, mox Celſo qui ponè ſecutus eſt, tandem etiam poſteris Straboni & Plinio.*

Sol. Alber.

Diſeaſes have their *intervals* and *mutations* whereby they ſeem to be new,

as

as *Langius* notes in one of his *Epiſtles*. *Proinde nihil opus eſſe arbitror, ut meis literis ſemper aliquid novi tibi ſignificem, quum exoleti Veterum morbi quotannis denuo incrudeſcant & renoventur. Et (ut Comicus ait) nil dictum modo, quod non dictum ſit prius; ita nil in morbis modo accidit, quod non acciderit olim.* Lang. Lib. 2. Epi. 14.

For the *deciſion* and finiſhing this Queſtion, I ſhall lay down theſe *Theſes*, conciſely determining the whole *debate*.

1. That as the *Phænomena* and manifeſting *ſymptoms* of the *Scurvy* are various, ſo are the *procuring cauſes*.

2. That the *Antiquity* of its procuring *cauſes*, as, bad air, ill dyet, ſloth and idleneſs, confinement, melancholy, long ſickneſs, *&c.* argues and proves the *ſeniority* of the *diſeaſe*.

3. That the new dreſſes and *diſguiſes* of this *diſeaſe*, differing from the *ſymptoms* and *Phænomena* of the *diſeaſe* in former times; are but *gradual*, *conſtitutional*, and *individual*; diſcovering new *complications* of diſeaſes, *degeneration* of humane Bodies by *ſeminal traduction* and abuſive living, and not *eſſential conſtitutive* differences.

4. That

4. That if *accidental* and *characteristical* difference by new *additional signatures*, do so far alter a disease as not to be the same, but a new *disease*; then not only the *Scurvy*, but the whole *catalogue* of diseases are to be new named; and not only now, but every year may receive new names, upon the same account: which is *absurd*, and renders our *Art* uncertain.

Morbificorum Seminum fructificatio varia.

5. That the *Scurvy*, *quasi genus morborum*, hath a *latitude* and *extent* more than a *specifick* difference, from whence the *variegation* of the *Scurvy* is allowed, and comprehended within the circle of its *generical latitude*; so that the *variations* and new *pullulations*, are *derivative* from the old stock, but differing by *transplantation* in several *individuals* and *accidental complications*.

CHAP.

CHAP. III.

Of Countrys, and Places, more or leſs ſubject to the SCURVY.

Diſeaſes, if well obſerved, we find to vary according to *Climats*, *Regions*, and *Places*: And this by reaſon the *conſtitution* of the *Air* is various and much different: In one place *healthy*, in another *ſickly*: one *Air* diſpoſing to this *diſeaſe*; another *diſpoſing* to a different *diſeaſe*: *Air* is ſo neceſſary to life, that without it we cannot *ſubſiſt*; which *ſurrounding* us about, and being continually ſuckt and drawn in, muſt needs *affect* the body with its *conditions* and *properties*. And this is very apparent to *travellers*, who find great *alterations* of body, by changing their *climate*.

That the *alterations* of the *Air*, works new *affects* upon bodies, is *apparent* to thoſe that dwell in the ſame place; for at the quarterly ſeaſons of the year, when the *conſtitution* of the *Air* changeth, our bodies then are upon the *variation* alſo: Hence it is that

Spring

Spring and *Autumn* abound most with diseases; the Air then *assuming* new qualities *opposite* to its former *constitution*, sets new *impressions* upon our bodyes, which occasions various *æstuations* and *turgid fermenting* of the blood.

And not only the *Air*, but the common *food*, and manner of living in several places, inclines us to this or that *disease*: *Ex iis morbi contingunt è quibus vivimus.* Upon both accounts bodies are *disposed* to *health* or *sickness*. This is manifest by some *diseases*, that are either *peculiar* to some places, or much more common there then in other places: For example, the *inhabitants* of *Cranon*, a *City* in *Thessaly*, was much more *infested* with *pestilential* and *putrid diseases*, for the *disposition* of the *Air*, as *Hippocrates testifies*. *Lib.* 2. *Epidem:* The people of the *Alpes afflicted* with the *bronchocele* and *scrofulous tumors* much more than in other places, from the water that they drink being *impregnated* with some *mineral tincture* as *Langius* observes: And the *Portugal*, more apt and inclined to *Phthisicas Consumptions*, from the *disposition* of the *air*; as *Fernelius* notes.

Hippoc.

Langius. Fernelius Lib. 11. *de abdit. rerum Causis Cap.* 11.

And

And this likewiſe is *verified* in the *compaſs* of our own *Country*; for in ſome parts of *England*, ſome diſeaſes are very frequent and conſtant, that are more rare or ſeldomer in another part; and by the *ſea*-ſide we obſerve the *Scurvy* to abound more, and to be worſe then in other parts of the *Country*. But to draw our diſcourſe neer the point, and *determine* the chief places where the *Scurvy* is *predominant* and moſt frequent. Firſt, you muſt underſtand, that *diſeaſes*, in reſpect of places, are ſaid to be either *ſporadical*, ſuch as caſually happen, and no conſtant nor very common *diſeaſe* in that place, but ſcattered here and there: as, the *Pleuriſie*, *Falling-ſickneſs*, *Stone*, *Gout*, and ſuch like. Or elſe they are *endemical*; ſuch as *infeſts* many at a time, are common and conſtant to a place, from the nature of the *Air*, *water*, or ſome general *cauſe* amongſt that people; as the *examples* before given.

Now in what places or *Countrys* the *Scurvy* is *ſporadical*, and where it is *endemical*, is the matter in hand; for it is both, in reſpect of divers places. The *Scurvy* is properly ſaid to be *endemical* m oſt of our *Nothern Countrys*, that border

border upon the *Baltick Sea*, or adjacent to the *German Ocean*: As *Denmark*, *Swedland*, *Norway*, *Frisland*, *Holland*, *England*, &c. But in *High Germany*, *France*, *Spain* and *Italy*, the *Scurvy* is accounted *Sporadical*, not so frequent, but here and there one. And *Riverius* (Physician to the King of *France*) in his *Praxis Medica* takes but small *cognisance* of this *disease*, as being very rare in his *Country*; and by way of *diminution* calls it *Scorbutica affectio* not *Scorbutus*; and joins it with the *hypochondriac melancholy*, as little differing from it, or a *gradual difference* above it, having acquired some *malignity* to distinguish it. *Quia tamen Scorbutus hisce regionibus, ut antea dictum est, non est familiaris; & nos illo prorsus carere omnes medici nostrates existimant, noluimus eum absolute Scorbuti nomen donare sed satius esse duximus Affectionem Scorbuticam appellare, quæ scilicet ad scorbuti naturam proxime accedat, verus tamen Scorbutus non sit. Est autem scorbutus nihil aliud, quam affectio hypochondriaca, peculiarem quandam malignitatis gradum adepta.*

River. Prax. med. l. 12. c. p. 6.

But upon strict *examination* we should find much of this to be *erroneous* but

but I wave the prosecution at present and pass on; the following *discourse* will prove the contrary. This we allow, all places to have the *Scurvy*, yet not all alike; but some more, some less; in some places it is *sporadical*, in others *endemical* as in our own Country. *Sal. Albertus* notes that the *Scurvy* in his days (almost a hundred years ago) was more or lesse in all places where he *practised* and *travelled*, and he had been in many Countryes, both *Northern* and *Southern*. And gives this *testimony*: *Ego quidem nuspiam non reperi Scorbuti seminaria, quorsumcunque appuli, quemcunque in mundi cardinem curandi causa evocatus sum hactenus.* *Sal. Albert. Epist. ded. Histor. de. Scorb.*

But that some places should be more *afflicted* with this *disease* than others, is by reason of some common procuring *cause*, more frequently and more constantly *prevailing* in one *Country* than in another; of which *causes* hereafter in their *proper place*, where we shall *treat* of the *procatarctick* or *primitive causes* of the *Scurvy*.

CHAP. IV.

How to diſcern the Scurvy in its various Signs, and Symptoms, or products; and complications with other Infirmities.

THe *Scurvy* not being *confined* to any particular part of the body, nor to any ſingle or *ſolitary* cauſe, but being a *ſyndrome* or *concourſe* of *diſeaſes* and *ſymptoms conſpiring* to its *deformity* and various appearance; of neceſſity the ſigns diſcovering will be divers, more or fewer, *conſentaneous* or *diſſentaneous*, according to the nature of their *cauſes*, and parts of the body from whence they do ariſe.

In the beginning of this diſeaſe acquired, when the *Seminaries* firſt ſprout forth and appear, the *Symptoms* thereof are mild, and more eaſie to be *checkd* and *eradicated*. By time and neglect of cure, its *radication* is more firm and groun-

grounded, *extenſivè* and *intenſivè*, ſpreading in the body, and alienating the *vital principles* from their *genuine nature* and duties.

By *continuance* and length of time, it *arrives* at the full pitch, ſtate and ſtrength; appearing with *formidable* and almoſt *incorrigible ſymptoms*; having *ſeized* and taken up for its quarters both *principal* and *miniſterial* parts of the body, diſordering and perverting all the *faculties*; that acting contrary to their own nature and *offices*, variety of ſtrange *morbifick effects* do enſue, proportionable to the *irregularities* of each *faculty*: the whole body is now out of frame and order; the *harmonious œconomy* and regular *government* thereof, is now changed into a *preternatural morbifick* ſtate and diſorder; each quarter or ſeaſon of the year diſcovers ſomething new, and threatens ſomething worſe to be endured and undergone.

In the *diſquiſition* and ſearch to know aright and find out the nature of this Diſeaſe, you muſt obſerve its ſeveral *habits* and dreſſes, in which it *variouſly* appears: and by a ſtrict *ſurvey* of its *concomitant effects* and *products*, you

may certainly discover its *being*, *fortitude*, and *gradual progress*, parts affected, and various *complications*.

Many and various are the *Symptoms* which accompany this *Disease*, though all do not appear in every person, but in some more, in others fewer, according to the greatness, *duration* and *progress*, and *compliance* with other diseases, *preceding* or *supervening* the *scurvy*.

The *Morbifick* disposition and *debility* of parts to *consent*, *degenerate*, and be *depraved*, *contribute* much to the *deformity* and *variation* of this *Disease*. *Propter inæquale robur partium*; by reason of the Natural *integrity*, and *deficiencies*, *fortitude* and *imbecillity* of parts in divers persons; some have one part strong and *vigorous* in its *Office*, not easily *depraved* and *vitiated*; another hath the same part weak, soon *consenting* with any distemper, easily perverted from the *integrity* of its Office and *contributing* its vice. And since the parts be divers, their Use and *Offices* various; their *Enormities*, *Vitiosities* and *Defections* also must be various, and their *Effects dissimilar*, *heterogene*, and unlike according to the *consent*

and

and *diſſent* of parts, in their *integrities* and *defections*.

Which being rightly underſtood, it is no wonder that the *Scurvy* appears in divers colours and *ſhapes*, *acting* a part here and there in the body, in various *deformities*.

Now as the ſeveral parts in the body have their ſeveral *offices diſtinct* from each other, yet all *harmoniouſly* (in the *rectitude* of *Nature*) *co-operating* *ſubſerviently* and *ſubordinately* for the preſervation and welfare of the whole; ſo are there diſtinct *characters* for their duties and *deficiencies*; diſcovering which part acts in *integrity*, and which is *irregular*, *degenerates* and falls off.

From hence the *Scorbute* as it is *variegated* and *diſcordant* in the *Symptoms* and *Products*, which cheats the judgment of many, and *puzzles* them to *appropriate* a fit *Medicine*; yet may the able *Phyſician* hereby *collect* and find out the *conſpiring* and *contributing* parts to the *difformity* of this diſeaſe, which rightly known, the difficulty of the cure is much abated.

Some complain of *laxity*, *gripes*, and breaking out often into *fluxes*; others complain of *coſtiveneſs*, but a ſtool in

two, three, or four dayes; ſome complain of burning and fluſhing heats; others their limbs are *rigid* and ſtiff with cold, the blood ſetled, black and *livid*.

Some are heavy, drowſie and ſleepy; others tired and worn out with watching, and *indiſpoſed* to the nights *refreſhment*: ſome have a ſlow, weak, *languid pulſe*; others a quick, fierce, leaping *pulſe*.

Some have thin, pale, watry *urine*; others thick, muddy, and high-coloured *urine*.

Some have black, looſe Teeth, and *putrid* Gums; the thighs and legs free from pains or ſpots: others the contrary, have ſpots and pains, but the Teeth and Gums ſound.

Some are troubled with an itching here and there; others moleſted with pains, *erratick* and wandring from part to part; or more *fixed* and conſtant in particular parts. Moſt are ſenſible of a weakneſs, *laſſitude*, or wearineſs, *indiſpoſition* and dulneſs of *mind*.

Some their Bodies pine, away, waſt and are *conſumptive*; others grow *corpulent*, ſwell'd and puffed up, and appear *hydropical*.

Some

Some complain of ſhortneſs of breath, ſtraitneſs and *compreſſion* of the Breaſt, *difficult* or hard breathing, and *palpitation* of the heart; others their *vital* parts are more free, but complain of the Head, *Hypochonders* and Loins, *&c.*

Some are moleſted with thirſt, heat of the *Stomack*, and drineſs of Mouth: others are troubled with *ſalivation*, ſuperfluous moiſture and ſpitting.

Some bleed often at the *noſe*; others have *preternatural excretions* of blood in other parts: And women their *courſes* diſorderly.

Some have their *blood* groſſe, thick, and ſlow of *motion*; apt to be *ſtagnant* and obſtruct the ſmaller veſſels: others have their *blood* too hot and thin; *ſubject* to *inordinate ebullitions*, and *ſeavoriſh diſtempers* upon ſlight occaſions.

Pains and gnawing at the *Stomack*, gripes in the *guts*, or ſtitches in the ſides or breaſt, torment ſome: others have pain in their heads, back, or limbs.

Some are afflicted with a *numbneſs* inclining to be *paralytick*; others with *convulſive* motions and *cramps*.

Some are troubled variously with *discolourations*, and *defædation* of the skin; *spots*, or *scurf*; *tetters* or *ring-worms*, *pustules*, *blisters*, and various *eruptions*.

Some a *giddiness* in the head seaseth them; others their sight fails, or are struck *blind*.

As long *feavours* or *acute* wasting *feavours introduce* the *Scurvy*; so the *Scurvy* also causeth divers *feavours*; and these *feavours* often times are accompanied with some unwonted *symptoms* relating to the *Scurvy*, that makes them differ from the common intermitting *feavers* of the *Ancients*; and these are our *irregular Scorbutick agues*, that are often called new *diseases*: and these *Scorbutick Agues* are very *contumacious*, unless tamed with *Anti-scorbutick* and *radical Medicines*.

For the *complications* and *associations* of the *Scurvy*, with other diseases they are not to be *digested* into any *method* or order, but the Scurvy is a companion for all; *Scorbutick Consumptions*, *Scorbutick Pox*, *Scorbutick Dropsies*, *Feavers*, *Palsies*, *Gouts*, *Convulsions*, *Asthmaes*, &c.

The

The variety of *opposite* and different *Symptoms*, which accompany the *Scorbute*, do startle many in their judgment, to determine certainly when they meet with the *Scurvy*, when not; and because the *Symptoms* are not peculiar but common, and the effects of other Diseases as well as the *Scurvy*, it is no wonder if their Cure be so uncertain, *difficult* and seldom performed; since they are *equivocal effects*, obscured in their causes by a dubious *complication*, and *alternative causation*.

To resolve the *ambiguous*, and such as stagger in their *judgments*; Take this *observation*.

That the *Diagnostick Signs* of the *Disease*, usually so accounted and most frequent: as *defects* in the mouth, pains, spots, weakness, *lassitude*, *&c.* some or many; *antecedent causes concurring* some or many; as a close Chamber-air, and *confinement* within doors; or a *Region* where the *Scurvy* is *Endemical*, gross food, *sedentary*, *inactive*, retired life, studious, *melancholy* disposition, or *splenetick*, *indulging* sleep and ease: In the *concurrence* of these *Causes*, *collated* with the Signs mentioned,

a certain determination and judgment of the *Diſeaſe* will *reſult*; and from thence a certain *proceſs* in the *Cure* may enſue.

CHAP. V.

A Survey of Scorbutick Symptoms and Complications, inquiring into their Cauſes.

ALthough the *Scurvy* is *fallacious* in appearance, putting on ſeveral *forms* and ſhapes, according to the diverſity of *individual* bodies, declining from the ſtate of *integrity* and ſoundneſs, into various *diſeaſes* by a peculiar *propenſion*, from their particular *fabrication* and *conſtitution*, *radication* of their *vital principles*, cuſtoms and manner of living, which is divers: notwithſtanding, a certain knowledg may be had by the ſeveral *ſignatures* that attend this *diſeaſe*; ſome of them *diſcovering* its *initiation*, others its *increment* and *progreſs*; ſome alſo declare its *ſtate* and *confirmation*; others the ſeat of the diſeaſe. The

The *Scurvy* in the beginning is difficult to be known, for that the ſigns are common to other diſeaſes; as weight and heavineſs of the body, *laſſitude*, wearineſs or weakneſs without manifeſt cauſe, dulneſs or cloudineſs of the head, *&c.* but *conferring* with the *antecedent cauſes*, as a prudent *Phyſician* ought, he may eaſily determine from whence ſuch *ſymptoms* do ariſe, and have their *dependance*. Therefore when the *ſigns* are *dubious*, and a *ſuſpicion* only of the *Scurvy* appears, you muſt examine if the *Scurvy* be frequent in that place or *region*, whether the perſon be of a groſs and diſorderly dyet, *melancholy*, retired, *inactive diſpoſition*, or cauſe of grief have *preceded*; whether he or ſhe be born of *Scorbutick parents*; if they be *Splenetick*, or have a *Scorbutick bedfellow*: and if ſo, or ſome of theſe, you may then conclude the budding *ſymptoms*, though ſcarce diſcernable, to be *pullulations* and effects of a *Scorbutick root*, and will hereafter more plainly diſcover their nature, in a fruitful *production* and *maturity*, if not prevented by good diſcipline and *medicine*.

In

In a true ſtate of health, and *integrity* of *nature*, all the *faculties* perform in the *rectitude* of their *duties*; the juices or liquors of the body in the veins arteries and nerves have their due *conſiſtence*, *tinctures*, *ſapors*, *ſpirituous* and *balſamick* nature; from whence a *vegete*, lively and active body, a brisk, merry and *aiery* mind: but when theſe humours *degenerate* from their *purity*, the *faculties* decline their duties and *functions*, the *ſpirits* grow *languid* and impoveriſhed, *alienated* from their *lucid* nature; being either *extracted* from impure blood, and *ſcorbutick alimentary* matter, or clogged and defiled in their *channels*, by *ſupervening impure* additions, that cauſe them to *degenerate*: no wonder then if you feel a *Gravamen*, weight, and *inaptitude* for *motion*; the body then begins to be a *load*, to wax heavy, when the *ſpirits* are not *generated* ſo plentifully, nor ſo purely: for ſuch as the blood is, better or worſe, ſuch will the ſpirits be from thence extracted, *pure* or *impure*; and the *faculties* thereby managed, will act *regular* or *irregular* (*cæteris paribus*) *proportionable* to the *fortitude* or *debility*, *integrity* or *alienation*

tion of the ſpirits, their *agent* & mover: and as the *ſpirits* decline and are *deficient*, or clogged and fettered by *impure degenerate* matter, the *vigour* of the body and ſtrength of the *limbs* abate; from whence a *laſſitude* and debility doth *proceed:* And from hence the cloudineſs and dulneſs of the *brain*, ariſeth from this *ſcorbutick* matter, that *infeſt*, clog, and diſturb the *animal ſpirits* whereby they are not ſo active, brisk and lively.

Thoſe that complain of an *anguſtineſs* or *compreſſion* of the breaſt, *obtuſe* pain, and ſhort or difficult breathing, or *palpitations* of the heart; moſt of them, are, or have been *melancholy* or *ſplenetick*; and have either a ſlow languid *pulſe*, or a quick, but labouring *pulſe*: theſe *ſymptoms* ariſe for the moſt part *ſympathically* and by conſent from the *adjacent* parts, namely the *hypochonders* or *ſtomack*, which being diſtended loaded, or clogged, the *vital* parts do labour with the burden; the parts diſtended preſſing upon the *Diaphragma*, they feel a weight about the *region* of the heart ſometimes; and this *Scorbutick* matter lodged in the ſpleen by occaſions *fermenting*, and waxing *turgid*;

turgid; cauſeth great *Aſthmatick Paroxyſms*, by conſent from this part almoſt to ſuffocation; and ſome have dyed ſuddenly by the fit in a few hours: As I remember, about eleven or twelve years ſince, an able Phyſician, namely Dr *Puleſton* at *Cheſter*, who being *Scorbutical* and ſubject to ſuch *Aſthmatick Fits*, went well to bed, and being ſuddenly taken in the night, was dead before I could come to him, though he lived in the ſame ſtreet.

In the ſame City ſometime after; a worthy Lady, ſoon after Delivery, all being well with her in the morning, I being preſent and conferring with the Midwife; yet after noon by a ſudden *fermentation* and *turgid* riſing in the *Hypochonders* (ſhe being formerly *Splenetick* and *Scorbutical*) was *ſuffocated* thereby, and paſt recovery before I could come to her, that finding her incapable of help, ſhe dyed preſently, in the preſence alſo of another *Phyſician*. And to confirm this *Aſſertion*, that although *Scorbutic* perſons are troubled in the *vitals* and parts for *reſpiration*, yet it is by *tranſmiſſion* and conſent often times, and their complaint pointed at is chiefly about the *region* of the

the *Stomack* and *Hypochonders* or Sides, under the *Diaphragma* or *Midriff*, that ſeparate the *vital* parts from thoſe of the belly; which *Eugalenus*, *Horſtius*, *Sennertus*, and other eminent Phyſicians alſo have obſerved.

And further, this difficulty of breathing, *compreſſion* or *anguſtneſs*, is not always, nor troubleth alike; but hath their *intermiſſion*, *recurrences*, *intenſions* and *remiſſions*, as the parts primarily affected are diſpoſed; and is chiefly perceived upon ſome paſſion, after exerciſe and any ſtrong motion of the body whence this *Scorbutick* matter is ſtirred, heated, *attenuated*, and provoked to *fermentation* and *turgency*: and from this degenerate *Scorbutick* matter *fermenting*, the heart and vital parts are affected by the *genus nervoſum*, cauſing *palpitations*, various *pulſes*, faintings, ſwoonings, or inclinations thereto.

Sometimes the heart and Vitals are primarily affected; as when the blood is impoveriſhed and diſpirited, it paſeth through the ventricles of the heart heavily; and thoſe parts for want of ſpirit and vigour of expanſion, ſuffer a coarctation and compreſſion: and upon

on the ſame ſcore all the vital parts do contract and leſſen in their cavities and ductures, and reſpiration is performed more difficulty and laborioufly. But when the ſpirits are vigorous and plentifully generated, theſe parts dilate and are expanded, the blood circulates more freely and briskly, and the lungs diſcharge their office with facility and freedom.

The Mouth commonly (not always) carries ſome ſign of this diſeaſe: as bleeding of the Gums; this *ſymptom* happens to thoſe whoſe blood by *degeneration*, is *acrid*, ſharp and thin, thereby makes its way through the Gums, being of a ſpungious looſe ſubſtance, ſooner *penetrated*; and ſometimes the Gums itch and ſwell with this *luxuriant* blood, which having loſt its *balſamick* nature and grown impure, the Teeth looſen, *Gums* corrupt and putrifie, cauſing the breath to have an ill ſmell, and the mouth to have a bad ſavour or taſt.

Pains ariſe in ſeveral parts, to *Scorbutick* perſons, from the aforeſaid cauſes; namely, *acrimony* of the blood and nervous juyce: which pains are much abated in ſome perſons by often

bleeding

bleeding at the *Noſe*, or *Hemorrhoids*, and nature finding vent that way, other *ſymptoms* abate and leſſen; the blood being thus decreaſed, keeps within its own *channels*, is not ſo *turgid*, nor moleſting to other parts, by *extravaſation*: yet as this evacuation is beneficial in ſome reſpects; ſo on the other it *impares* nature, by *exhauſting* the *vital* ſtream, the ſupport of our life. And therefore let none confide in that for a good remedy, to be elected, that nature uſeth in a way of *exigency*, being forced to ſuch an *expulſion*; and thoſe that have ſuch frequent *evacuations*, may conclude their blood to be changed from its *balſamick* nature, having acquired ſuch *ſtimulating qualities*.

This gives warning of a Conſumption.

Hence we may argue uſual *phlebotomy*, to be hurtful, although *alleviation* and abatement of *ſymptoms* do follow (except in a caſe of *turgency*, *plethory* and iminent danger) for bleeding does but *minorate* and *palliate*, not *meliorate*; it does not *eradicate* the *ſeminaries* of the diſeaſe, but only checks and abates a *luxuriant* blood; alters not its ſtate *qualitatively*, but impares nature by *emiſſion* of good and

bad together: but that which is a good remedy and often to be used, makes a separation, and sends forth only the offending *cause.*

But to return to the point: Various pains I meet with in *Scorbutick* persons, sometimes fixed and constant to a part, continual or *intermitting*; in others wandring pains, sometimes here, sometimes there; in the arms, head, shoulders, back or spine, breast, counterfeiting a *Pleurisie*; thighs, shins and feet. These pains afflict the Patient like those upon the *Venereal* score procured; and oftentimes the *Scurvy* and the *Venereal Lues*, join their forces together, and then these pains proceed from their *complicated causes:* and when the *Scorbutick* and *Pocky* ferments imbrace and are united, they are thereby more firmly *radicated*, and with more difficulty *expulsed* out of the body, when these two joyn hands and *associate:* and as they are contumacious, so their *symptoms* are fierce and cruel for the most part.

This is frequent; and the cure is performed with more difficulty if the venereal taint be ancient.

Some are afflicted with great headaches, on the top of the head, or the temple-muscles, for the most part; and this

this ariſing from a biting ſharp matter or *acrid* fume, boaring as it were the membranous and moſt ſenſible parts, endeavouring a *ſolution* of *continuity*.

Frequent pains of the Teeth accompany this diſeaſe in many perſons; ſometimes running from one Tooth to another, or all the Teeth on one ſide. And this *Eugalenus* and *Sennertus* obſerve. And the cauſe is not difficult to be demonſtrated; for in moſt *Scorbutick* perſons, the *Serum Sanguinis* abounds, is *acrid* and *punging*, which being tranſmitted, moleſts all *nervous* and *membranous* parts where it cometh: and here both *Nerve* and *Membrane* are adjacent or contiguous to the Teeth. Some will have the Teeth themſelves, the bony ſubſtance, to be ſenſible; but this is not pertinent here to diſcuſs, therefore I paſs it over: ſufficient that there is a *dolorous* cauſe, ariſing from a *Scorbutick degeneration* of the blood.

From the ſame cauſe *obtuſe* pains in the fleſh are felt by ſome, in ſeveral parts: alſo *lacerating* and pricking pains of the nerves and membranous parts; ſometime in the Breaſt or Sides,

and then they are called *ſtitches* by many; ſometimes on the *Spleen-ſide*, ſometimes on the *Liver*, under the *Short-Ribs:* theſe are more *acute.*

When this *acrimonious* matter hath *perambulated* and troubled many parts of the body, it happens conveniently at laſt into the *Guts*; *Cholick*, pains, and gripes immediately enſue; and if not drawn forth by *Cliſter* or other proper *Purgation*, makes its *exit* by a *flux* of its own procuring, after ſome *tragick acts* in that *ſcene.* But concerning ſuch fluxes I ſhall ſay more by and by.

Convulſive motions happen to ſome from this *acrid* matter, which invading the *Nerves*, cauſe them to *vellicate* and *twitch:* and many that complain of the *Cramp*, it ariſeth from this cauſe.

Some alſo their limbs are *contracted* or *diſtended*, that they are deprived of their uſe; and this from a *Scorbutick* matter affecting the *Nerves* and *Tendons*, cauſing a *rigidity* and *incapacity* for motion; now as the *Nerves* are the *conduits* to convey the *animal ſpirits* into all parts, to give them ſenſe and motion; ſo when the *ſuc-*

cus

cus nervosus, does *degenerate*, and the supply of *spirits* fail; or by *obstruction*, that they are not conveighed into the parts; the wonted actions of those parts cease, or are *deficient*.

And here you see the reason of a *Paralysis Scorbutica*, a *Palsie* arising from the *Scurvy*, when the *Nerves*, *Ligaments*, and *Tendons*, are vitiated and afflicted by the aforesaid matter; causing a *cessation* of their wonted *activity* and motion.

And as a precursor or warning before such accidents happen, a *stupor*, *numbness*, or *rigidity* of members not ordinary, doth trouble the *Patient* for a certain time before, declaring the *gradual* approach of such *affects*: but sometimes it seizeth the Patient suddenly, as *Eugalenus* relates of a *Sorbutick Cholick* terminating in a Palsie and resolution of *members*, from a *translation* or remove of the *morbifick* matter. *Pag.* 114. *Eugalenus.*

Joynt-pains, or *Scorbutick-Gouts*, I observe frequently; seldom fixed and constant to a part; but most commonly running from one Joynt to another, and in its *vagary* other parts also are made sensible of its *perambulation*, by

ſtitches, aches, *mordications*, or *lacerations*, *diſtentions* and *vellications*. This humour is *ſerous*, thin, and very movable, endowed with penetrating, ſearching properties, that makes it thus active and *fugitive*: and indeed the *Archæus* of the parts is provoked by its preſence, and with indignation *tranſmits* it from part to patt, unwilling it ſhould lodg or ſettle in his *territories*, being *hoſtile* and troubleſome.

And if this *acrid* humour get into the *urinary ductures*, it counterfeits the Stone, cauſeth the *Vreters* to *vellicate* and twitch in the ſmall of the back, towards the flank and *region* of the bladder; and the *Vreters contracting* hereby, makes a ſuppreſſion of *Vrine*, a ſtoppage of water for the time. Their *Vrine* for the moſt is high-coloured, thick and ſandy. Many upon this cauſe complain of great pain in their backs, ſupppoſing it to be the *Stone*, when as it ariſeth from a *Scorbutick* humour infeſting thoſe parts.

Fluxes and looſeneſs of the Belly, accompany the *Scurvy* in ſome; the cauſe of which

I have met with ſeveral deluded thus, having uſed Medicines for the ſtone without any relief but freed afterwards by proper Medicines againſt the *Scurvy*.

which *Sennertus* and others *impute* to the *debility* of the *Liver* and *Veins*, which do not attract the *Chyle* sufficiently, but remaining in *primis viis*, is there corrupted and ejected with the *feces* or *excrements* by stool: but this opinion will not hold, since the *Liver* is discharged from the office of *sanguification*, and the *distribution* of the *Chyle* otherwise assigned.

These *Fluxes* may be caused two wayes: First, the *Chyle* or *alimentary* juice of the first digestion, being *transmitted* from the Stomack, *acid* (as it is natural in that place) receives a *transmutation* in the *Duodenum* or first *Gut*, from the *balsamick felleous* liquor, divesting the *Chyle* of that sharpness which it had from the *stomachical* ferment into a more *balsamick saline* nature; and being thus changed, is then gratefully received by the *Venæ Lacteæ*, which otherwise they reject, having such an *hostile* quality not to be admitted by them (according to that of *Helmont*; *Acidum extra Stomachum Corpori est hostile*) and this *acid Chyle* so rejected, is turned down the *Guts*, griping as it passeth, and *stimulating* to *expulsion*. *Helmont.*

Or ſecondly, Theſe *Fluxes* may be cauſed thus: In *Scorbutick* perſons, (in moſt of them) the blood is *acrimonious* and *degenerate* from its *balſamick* ſtate and purity; now the *Meſaraick Veins* (*arteries* ſome will have) being *inſerted* and *terminating* in the *Guts*, and Nature being provoked and moved at this injurious gueſt; *ſeparates* and *ſequeſters* this *acid* and depraved matter for her own relief, and bringing it by theſe *Ductures* to *exterminate*; the *Guts* receive it, where meeting with the *ſtercorations ferment* of thoſe parts, *ebullition*, *fermentation* and *ſtimulation* forthwith enſues upon their *congreſſion*: Hence *Fluxes* of various colours according to the nature of the *degenerate* matter, and diſpoſition of the bowels.

And to this purpoſe, a learned *Phyſician* ſpeaking of the uſe and office of the *Meſaraick Veins*, diſſenting from others, ſaith, *Sed nos ſentimus per venas illas omne excrementitium ex omnium venarum anatome per eas vias ad communia inteſtina labi, & cum ſtercoribus ſtomachi ad monoculum uſque & ſic ex corpore expelli*: that is, But we do judg, that by thoſe veins all *excrementitious*

Kozak de ſale pag. 218.

mentitious matter is brought to the *Guts* from all the *Veins* of the body, and with the *feces* is caſt forth.

These *Fluxes* are not to be cured with aſtringent *Medicines*, but with thoſe which are proper for the diſeaſe, cutting-off the cauſe, and *eradicating* the foundation thereof: and this *Sennertus* warns you of, ſhewing the danger of ſtopping thoſe *Fluxes* imprudently in theſe words: *Quacunque autem de cauſa, & quocunque modo generetur fluxus alvi in Scorbuto, hoc peculiare habet, quod adſtringentia medicamenta plane noxia in eo ſunt, & ſummam anguſtiam, ſpirandi difficultatem, ac animi deliquii & ſuffocationis periculum inducunt; cum materiam vitioſam in venis detineant, & in viſcera magis impingunt.* That is, From what cauſe ſoever, and after what manner ſoever a *flux* of the belly is begotten in the *Scurvy*, this property it hath, that aſtringent *Medicines* are manifeſtly hurtful, and do procure *anguſtneſs* and difficulty of breathing, as alſo danger of *ſwooning* and *ſuffocation*; becauſe they detain the vitious matter in the veins, and impact it more in the *bowels*.

A Patient upon the unadviſed ſtopping of ſuch a flux fell into violent pains, convulſive motions, and oppreſſion of the vitals threatning life. Tract. de Scorb. pag. 75.

As

As ſome are troubled with theſe frequent *eruptions* and *fluxes*; ſo on the contrary, *Coſtiveneſs* and *Conſtipation* of the Belly afflicteth others; and this either from the heat, *Siccity* and dryneſs of the *bowels*, by intemperate bad dyet, and ill cuſtoms: or that the *humidity* is exhauſted and conveyed otherwiſe by ſweat or *urine*, which takes away and abates the *lubricity* of the *inteſtines*.

Scorbutick Feavers are frequent to thoſe that obſerve them, and are able to diſtinguiſh from what *radix* a diſeaſe doth ſpring: and as the *Scurvy* doth produce *Feavers*, ſo long *Feavers* introduce a *Scorbutick* diſpoſition, by changing of the blood, and *impreſſing* upon the *Viſcera* for nutrition, an evil diſpoſition, or vitious *alienation* from their *genuine craſes* and *ferments*: and this *Sennertus* alſo affirms in his third Chapter *De cauſis remot. Scorb.* where he ſaith, *And Feavers often make for the generation of the Scurvy, ſince by them a melancholy humour is eaſily accumulated; for humours by a feavourish heat are become aduſt, and yellow Choler is changed into black, which chiefly happens about the ſtate of the*

the diſeaſe, when both continued and intermitting bilious Feavers do degenerate into quartanes, and from hence into the Scurvy: tertian Feavers alſo, which begin in the Spring-time, and after the ſeventh Paroxyſm are quotidian, for the moſt part they endure long, and at length terminate in the Scurvy.

To the matter aſſerted, this *Author* agrees, as the preceding words declare; *de modo* I cannot *aſſent* to him, but of that hereafter.

That *Feavers* and *Scurvy* do commute and complicate, daily experience doth manifeſt to Learned *Phyſicians*, that are *critical* obſervators: and thoſe intermitting *Feavers*, called *Agues*, which are looked upon and accounted by the vulgar and unknowing, as trivial ſlight *diſeaſes*; and, as I have heard ſome ſay, *An Ague in the Spring is as good as Phyſick*: but they little conſider what *ruine* theſe *Agues* bring to the beſt tempered bodies; what alteration and change they make in the *maſs* of blood; ſeldom recovering its former ſtate and purity, if they continue long and neglected: and at their *ceſſation* and departure you think all is done, the danger and the

The new Agues that ſtart up are ſcorbutick; unwonted and irregular in their ſymptoms

the *prejudice* paſt, and you *in ſtatu quo prius*; but now begins the *Scurvy* to act its part, ſlily and gradually to creep upon you, except by the advice of a ſkilful *Phyſician*, you raze out the *veſtigia* of the former diſeaſe, *characterized* and *impreſſed* upon the *Viſcera* for nutrition, by *alienating* their *ferments* from their *genuine* and *primitive* natures, from which *ſeminaries* the *Scurvy* will ſprout forth.

Hereby you may perceive the ſucceſſion and *commutation* of diſeaſes, how one diſeaſe *introduceth* and is the *preludium* to another. And this Dr. *Willis* confirms in his *Diatrib. Philoſoph. pag.* 128. treating of *intermitting Feavers*, (called *Agues*) ſaith: *Sin vero diutius protrahitur (ſcilicet febris) & ſanguis a temperie ſeu diatheſi acri & bilioſa nonnihil immutatus, in naturalem non reſtituitur, quandoque in acidam & aquoſam, aut etiam ponticam degenerat; unde Febris tertiana diuturna, in quotidianam aut quartanam tranſit; ſæpe etiam, quia ſanguis a diuturna hujus Febris mora valde depravatur, Icterus aut Scorbutus, aut Cachexia ſuccedunt:* But if the Feaver be *protracted* longer, and the blood changed

changed by an *acrid* and *bilious* disposition or temper, it is not restored to its natural state; but sometimes degenerates into an *acid*, watry, or *pontick* condition; from whence a long *tertian* passeth or commutes into a *quotidian* or *quartane*; and often also, because the blood by a long continuance of this *Feaver* is greatly depraved or vitiated, the *Jaundice*, *Scurvy*, or ill *habit* of body succeed.

That *Feavers* and *Scurvy* do commute and *complicate*, daily experience doth manifest to Learned *Physicians*, that are *critical* observators: and these *Scorbutick Feavers* are of all sorts, *Hectick*, *continual* and *intermiting*, *malignant* and *Pestilential*: and in this last *Plague* in the City of *London* 1665. I observed, being with several visited with the disease, that those bodies which were deeply tainted with the *Scurvy*, had the *Pest* in a more fierce and *direful* manner: and such bodies are more apt to receive the *Pestilential Contagion*, being in a fit *previous* disposition and *aptitude* for it, more than others whose bodies were more pure, that by such a *dissimilarity*, did more strongly resist and refuse admittance from

from without, and not apt from within to make ſo great a mutation in the *ſpirits* and *liquors* of the body. That the *Peſt* and *Scurvy* ſhould *complicate* and *unite* freely, there is much reaſon for it, if we conſider the *affinity* and *parity* of *ſymptoms* that is between them; I mean when the *Scurvy* is exalted, hath attained to its full ſtate and perfection: the *Scurvy* is then *contagious*, though not in ſo high a nature; hath its ſpots, *tumours*, and *ulcers*, not much unlike to thoſe that are Peſtilential: and although the *Feaver* be not ſo acute; yet there is a *febrile* putrid heat, commonly waſting and preying upon the *vitals*: or rather (according to the Doctrine of *Helmont*) the *Archæus*, which is the *vital ſpirit*, ſpends and wears it ſelf away by a conſtant *perturbation*, cauſed through impurity and *degenerate* matter wherewith it is clogged and *ſuffocated*; and wanting a due ſupply of pure aliment, to *extract* ſuch *ſpirits* from, thereby to maintain the continual *expence* and *tranſpiration* that the body ſuffers; hence *enervation*, *atrophies*, and *conſumptive* waſtings do enſue. (But of this more at large in my Treatiſe of Conſumptions.) That

That which the *Peſt* doth ſuddenly, *Scorbutick Feavers* do the like oftentimes, though more ſlowly: hence *malign* ſpots appear upon the *Corps*, as *characters* manifeſting the *virulent* nature of the *diſeaſe*; and theſe are commonly called *ſpotted Feavers*, which may rightly be termed *Scorbutick Feavers*.

Eugalenus, *Lib. de Scorb. pag.* 180. makes mention of *Scorbutick Peſtilential Feavers*, and gives an account of ſome, to which he was an eye-witneſs. *Martinus* alſo compares *Scorbutick Feavers* with the *Peſt*, by their ſimilitude of *ſymptoms*, and reckons up moſt of the common and chiefeſt *ſymptoms* of the *Plague*, to attend upon *Scorbutick Feavers* very often: *Sennertus* doth the like; and alſo ſaith, that the *Scurvy* is complicated with all manner of *Feavers*, ſo that he which will cure them, muſt not be guided by the doctrines and *ſymptoms* ſet down by old *Authors* (as did not diſcern the latent *Scurvy*) nor make a judgment of them from the number of days and fits; but by the *propriety* of their ſigns. And Dr. *Thompſon* in his *Loimologia*, derives much of the late *Peſt* from an high degree

Eugalenus.

Martinus.

Tract. de Scorb.

gree and advance of the *Scurvy*; his words are these: *Now sometimes contemplating the strange diffusive nature and encrease of the Scorbute, the high degree of malignity it did aspire to, and how it crucified and vexed poor mortals, making a meer mock at the trivial Medicines of the Dogmatists; I could not be perswaded but that in the process of time it would at last cause (upon outward irritating occasions) some tragical Catastrophe among us, and express in a direful manner, the grievous effects of that subtil poyson which lay couched and lurking in the body.* Seeing then there hath been in mans body such a previous *Scorbutick malignity*, and still is, being now *graduated* and *exalted* to an high pitch of *virulency*, from several *occasional* causes from within and without; and sith it is νόσος πολύμορφος, as it were an Ape imitating most *affects*, I conceive it no great *paradox* or *absurdity* to assert, that the Pest sometimes hath derived its being, or hath been much aggravated, from this malignant disease, with whose nature it much *symbolizes*, many of whose *symptoms* are *parallel* with each other, when the *Scurvy* is at its height.

height. And we may obſerve in Navies and Camps, when the *Scurvy* abounds in a high manner; it commonly evades Peſtilential, and cauſeth great mortality.

Conſumptions do often follow and are *complicated* with the *Scurvy*; in ſome the thighs, legs or arms do firſt diſcover it; the fleſh becomes *flaccid* and limber, the *skin* looſe: others their whole body decays, ſhrinks and is *emaciated*; and this by reaſon the body is defrauded of good *alimentary* juyce; the *nutritive faculty* fruſtrated in its office through impurity and *degenerate Scorbutick* matter, alienating the craſis of the parts, and vitiating the maſs of blood. Conſumptions.

And theſe *Conſumptions* which are *radically Scorbutick*, are not cured with that Method and *Medicines* which are preſcribed by the *Ancients*, and is the common practiſe in theſe days; as Aſſes milk, *Jellyes* and *reſtaurative* Broths; with which we ſee daily, how many linger and pine away, under the diligent uſe of ſuch means: but the main of the Cure lies in *Anti-Scorbutick Medicines*, ſuch as are *radical*, and apply to the *vital* Treatiſe of Conſump. pag. 52. and 53.

principles; that evacuate the *Scorbutick* matter, *transpire* putrid exhalations and vapors, and *roborate* the *faculties*; and then *nutrition* will come on apace. But I shall be brief in this point, because I have Discoursed this in another tract.

Treatise of Consumptions.

Several of these *Scorbutick Consumptions* I have had under *cure*; which have wearied out both *Physician* and *Patient*, in the common course of *restaurative Medicines*; but have yielded to the *efficacy* of *antiscorbutic Medicines*. I shall give you some particular account of one Person; a man about Thirty years of Age, *eminently Consumptive* and *scorbutick*; In *December*, 1667. being brought to *Clerken-well*, rather to dye there, then in hope of cure: He had been long kept in a course of *Physick*, but declined still and grew worse. I was brought to him to give my *judgment* of him, if there were any *possibility* to *recover* him. As he lay in his Bed, (as he had done for some days, not able to sit up) I *viewed* and *examined* him as to his past and present condition; what means and *Method* of *Physick* had been used, how the *di-*

sease

ſeaſe gradually came on; what parts chiefly *debilitated*, what courſe of life he had lived; and what elſe might give me *ſatisfaction* in the nature and cauſes of his *deſperate ſickneſs*. I ſaw his face was perfectly *Hippocratical*, ſhrunk up with a dead pale countenance, and hollow eyes; the fleſh of his body and limbs, quite gone; only a ſkin to cover them; which made him *complain* that his bed gall'd him. His *pulſe* ſcarce to be felt, his ſleep gone from him, and little of a man left but his *reaſon*, and *ſpeech*; which was ſomething ſtrange to me that he ſpake ſo well, and ſo rationally to every *queſtion*; and the man ſo decayed and ſpent, as to every thing elſe. The *Miniſter* of the Pariſh was ſent for to him alſo; *judging* his caſe more fit for *ſpiritual* advice, than *natural* means. But withal deſirous to try if there were any *poſſibility* to reſtore him; his wife therefore and other *relations* deſired my *aſſiſtance* and care of him ſo long as he was alive.

Upon their *importunity* I did undertake, though I ſaw no *incouragement*, and was unwilling to *defame* good *Medicines* in ſuch *deſperate hopeleſs caſes*.

But a friend to the ſick man, formerly a *patient* of mine that had uſed ſome of my *Medicines*, being in the Family, did incourage them, and oblige me to adminiſter to him; that if he dyed, my *Medicines* would not be prejudiced in their deſerved *fame*, for that he could *teſtifie* their worth. Whereupon I proceeded, and appointed, how the *Patient* ſhould be ordered, and ſent him an *Elixir*, to be taken twice in the day, which relieved his ſpirits; And a *ſomniferous Extract*, to take at nights, which gave him refreſhing ſleeps, and *comforted* him very much. Thus he continued for ſome days, and gained ſtrength; then I *exhibited* one of my *Scorbute Pills*, which operated twice or thrice with him, and no diſturbance in the *operation* or *inconvenience* after, but the *Patient* did come on. Then I appointed him a *reſtaurative eſſence* (that I uſe in theſe caſes) and another *Pill*, 3 or 4 days after, which ſucceeded very well, and our hopes very great.

But one night late, he fell into a great *hæmorrhage*, a bleeding at the noſe which continued, that I was called upon before day, and the Patient ready

ready to dye away. Several means was uſed before it ſtopt; and according to the account of the ſtanders by, we *judged* a gallon of blood at leaſt to have been loſt. The *Patient* then lay like a man half-dead, and our hopes blaſted. The next day his limbs *ſweld* and puft up; ſcarce able to fetch his breath, and lay in a very *deplorable* condition: notwithſtanding, having begun, I did not deſert him, but continued my care and advice in the uſe of means; the *Patient revived* again after ſome days, who gave *incouragement* to our *proſecution*; and I was very deſirous he might live, being preſerved almoſt to a *miracle*: His *ſtomack* after a while was ſo great that no perſwaſions could *moderate* him; eating as much at once as would ſerve two men in *health* but it did not hurt him; and he gained *ſtrength* daily, that in a ſhort time (beyond all expectation of his *relations*) he was able to go abroad; and was alive very lately; and is yet living, for ought I know.

CHAP. VI.

Primitive, External and procuring cauſes of the Scurvy.

THE *Procatarctick* and remote *cauſes* of the *Scurvy*, that gradually *introduce* and lay the *foundation* of this diſeaſe, are generally agreed and aſſented to, by *Eugalenus*, *Sal. Albert*, *Martinus*, *Horſtius*, and others, to be theſe: *Meat* and *Drink*, *Air*, a ſedentary inactive life, *ſleeping* and *watching* immoderatly, *paſſions* of *mind*. *Feavers* and long *ſickneſs*, a a *dyſcraſy* of parts, *advenient* or *hereditary Contagion*.

To which I muſt add another great *procurer*, not noted by any that hath treated of this *ſubject*; and that is, *Tobacco*, as it is uſed by *ſmoaking* in a *pipe*. And I may ſubjoyn another, and that is, Immoderate *venus*.

Tobacco.

Meat and drink.

Mala victus ratio, inordinate and irregular *eating* and *drinking*, does *introduce* the *Scurvy*. *Ex iis morbi nobis*

Con-

contingunt è quibus vivimus: As by convenient and proper feeding, *nature* is preſerved, and our bodyes that are in a continual *flux* and *tranſpiration*, are repaired by *tranſmutation* and *aſſimilation* of good food received; ſo on the contrary, *diſproportionate* and *inconveniate* feeding, does *labefactare vitæ principia*, Debilitate *nature*, diſorder the *functions* of the body, and bring a *dyſcraſy* of parts, and *alienation* of the peculiar *ferments*; Whereby a depraved *ſuccus* is *generated*, that inſtead of an *eutrophy*, a good nutrition; there is a *Cacotrophy* a bad addition; or a *Scorbutick Atrophy*, a *depauperation* and *macilent exhauſtion*.

Meats uſually accounted more apt to induce the *Scurvy* are theſe. *Beef* chiefly old, or *Bulls-fleſh*, *Goat*, *Boar*, eſpecially long ſalted; *Bacon*, *Seafowl*, and other *Waterfowl*, *Cabbage*, *Beans*, and ſuch like. Not only the *ſubſtance* and *properties* of food is to be obſerved; but alſo the fit *quantityes*, due *proportions*, and ſeaſonable *times* are conſiderable.

My own thoughts in relation to *dyet* is thus much, that groſs *meats*, and ſuch as do not eaſily *digeſt* with

this or that perſon are to be avoided; but light meats and ſuch as the *ſtomack* doth well *agree* with, *deſire*, and *digeſt* beſt, keep to ſuch. That which may be injurious to one mans body, may be wholeſome and agreeable to another.

That the conſtant *uſe*, and plentiful feeding upon the *meats* aforeſaid or ſuch like, are injurious and may *induce* or *promote* the *Scurvy*, is reaſonable to think: But, to pleaſe the *palate* now and then if ſuch be deſired, and lightly to feed or taſt them, cannot prejudice.

It is good in the general to avoid *meats* over-ſalted, or dryed; hard, tough, and groſs *meats*. *Pye-cruſt* and *Cruſt* of *bread*, which lay too great a burden upon the *digeſtions*; being long in *volatiſing* and *fermenting*: nor is the *nutritive ſuccus*, from thence ſo good. But ſuch as are light, *ſucculent*, *volatile*, and ſoon *fermenting*, either by nature, or ſo prepared by art and dreſſing; is the beſt feeding.

Hence it is that *Sea-men* and *Souldiers*, being of a hard, groſs, and careleſs dyet, (ſometimes conſtrained by neceſſity

neceſſity to ſtrange food) are moſt of them *Scorbutical.* And in *Navies* and *Camps*, *Scorbutick Feavers* are very frequent, and arrive to a great height of *malignity*, ſweeping them away like the *Plague* ſometimes, of which their feeding is one great cauſe to initiate; and then propagated by *Contagion.* And I remember, in a hard and long voyage at Sea, moſt of our people were very *Scorbutick*, at the end of the *voyage*; who, at our firſt ſetting forth, were ſound and *healthy.* And my ſelf of a very ſound body, did bear it out at *Sea*; but preſently after I came a ſhoar fell deſperatly ſick of a *Feaver*, *Scorbutick Symptoms* being apparent.

Indeed the *Scurvy* may very well be expected at *Sea*, ſince their *drink* commonly is as bad as their *meat.* Water uſually is their *drink*, and not very ſweet ſometimes; that I have often ſtopt my noſe to *drink.* To this is added, *Brandy* and *Tobacco*; both which are *Sea Companions*, and too much uſed. Which together, with the ſalt *Beef*, ſalt *Pork* and *Peaſe*, does much alter a good *conſtitution*; and in a ſhort time, makes the *Scurvy* to bud forth and appear.

Next

Air. Next to *meat* and *drink*, *Air* is to be conſidered as an *introducer*, and *promoter* of the *Scurvy*. A groſs, thick and moiſt *Air*, is ſufficient to breed the *Scurvy*: And upon this ſcore, ſome places do naturally produce the *Scurvy*. As your Fenny *Mariſh Lands*, and *Maritine Places*, and *Sea-Air*; eſpecially in the more *Northern Climates*, the *Scurvy* is a conſtant inhabitant. Now where the *Air* is not ſo pure, thin, *ſerene*, and dry, bodyes have not that free *tranſpiration*, to *ventilate* and purifie the *blood*: The *pores* are more *occluded* and ſhut up, in a foggy, moiſt colder *Air*; That the blood is not ſo well *defecated* by *fermentation*, and the *heterogeneous excrementitious particles* ſeparated and *tranſmitted*. But being reſerved do defile the *blood*, and the *craſis* of ſome *principle part* perverted: beſides, the *Air* being continually ſuckt and drawn into the body, muſt needs affect us, with its properties, good or bad.

Hence it is, that people living in different *places*, though dyeting and ordering themſelves alike; yet in one place they ſhall be more inclined,

ned, or more *Scorbutick*, than in the other.

Which *Greg. Horſtius* takes notice of in his days. *Verum in eadem Hollandia multo periculoſius & frequentius ſcorbuto afficiuntur illi, qui Alcmariam, Amſtelodamum, & vicina loca inhabitant; minus vero & rarius qui Gaudam & Roterdamum incolunt, quamvis eodem utuntur victu, ac ſub eodem propemodum climate verſentur.* And this, *Ronſeus* alſo obſerved before him. The *temperature* and condition of the *Air* is ſuch, that *diſeaſes* vary and are bred according to its *variation*; and this we *evidently* ſee in the quarterly ſeaſons of the *year*, *diſeaſes* to be intended, remitted or intermitted, to deſiſt at one time, to return at another. And the *Scurvy* we find more active, and more afflicting in *Spring* and *Autumn* then at other times. Whereby we may certainly believe, that the *conſtitution* of the *Air*, in this and that place, makes very much in procuring or keeping off the *Scurvy*.

Horſt. de Morb. Contag. Tract. de Scorb.

Hippoc. was very obſervant of this, and left it in caution, as very much to be obſerved by *Phyſicians*. The nature of any place from the *conſtitution*

Hippoc. περὶ Αἰέρων, ὑδάτων, τόπων.

tution and *diſpoſition* of the *Air*, diſpoſing to this or that ſickneſs.

Sedentary life. A *ſedentary* inactive *life*, diſpoſeth much to the *Scurvy*: As *motion* and *exerciſe* raiſeth the *ſpirits*, and quickens all the *faculties*, keeps nature up in her *vigour* and ſtrength: So *ſlothfulneſs* and eaſe dulls the *ſpirits*, *accumulates* groſs *humours*, obſtructs the body, abates the *acuteneſs* and *vigour* of the *digeſtions*, and *degenerates* the maſs of blood.

Corrumpunt otia corpus; for want of due *action*, the body like ſtanding water *decays* and corrupts: natural heat for want of *exerciſe* is abated and deaded; *excrementitious* degenerate *humours* abound, the body being thus diſpoſed to a *degenerate* ſtate, the *Scurvy* eaſily ſteps in and takes *poſſeſſion*.

Sleeping and watching. Immoderate *ſleeping* or *watching*; or unſeaſonably uſed, gives occaſion for the *Scurvy*. For, as moderate *ſleep* refreſheth the *ſpirits*, increaſeth natural *heat*, helps *concoction*, gives ſtrength to the body, gives a relaxation reſpite and eaſe to the tyred ſpirits, and revives nature: So on the contrary immoderate *ſleep* dulls the *ſpirits*,

ſpirits, retains *excrements* beyond their due time to be voided, and infects the *body*; whereby the *blood* and *nutritive juices* of the body, become foul and impure, the *ſpirits inactive*, and the *digeſtions languid* and *deficient:* Hence the *Scurvy* ariſeth and is planted in the body. So likewiſe immoderate *watching* does the ſame, when it *exceeds* the *limits* that nature hath appointed; *tranſgreſſeth* and ſteals away the due time for *ſleep*; the facultyes thereby are *debilitated* and *enervated*, the *ſpirits* tyred, worn out and *impoveriſhed.*

If *ſleep* or *watching* prevails contrary to the *Law* of *Nature*, either is injurious, makes the body to *degenerate* from its natural good *ſtate*, and gives occaſion for the *Scurvy*. Nature is not ſo indifferent in the *inſtitution* of thoſe *ſupports*, that they may be left undone, or done, when and how we pleaſe. As *ſleep* and *watching* are not to exceed in length; ſo are they to begin at ſeaſonable and due times. *Nature* does not allow to *watch* in the *night*, and *ſleep* in the *day*; though poſſibly you may think that ſo many hours *ſleep* in 24, is ſufficient for preſervation

tion of *health*, take it when you will. No, it is not ſo; for at the riſing of the *Sun*, and the light *darting* through the *Air*, the *ſpirits* begin to be more *brisk*, are then fit for *motion* and *action*; but when the *ſun* goes down, and darkneſs covers the *Earth*, the *ſpirits* are more dull and heavy, inclining to *reſt* and *retirement*. Now the more you force and croſs theſe *intentions*, the more injurious you are to your own preſervation; and *nature* receives prejudice by it.

As *ſleep* is appointed by *nature*, to refreſh the *ſpirits*, and repair loſt *ſtrength*; ſo the time for *ſleep* is appointed and limited, not when you pleaſe: The *ſun* was not made for you to *ſleep* by; nor the *night* for *labour* or *ſports*, but for *reſt*. Who ſo inverts this *courſe* ſhall receive certain *damage* in his *health*, and the *Scurvy* for his *Companion*. *Night watching* and *late* ſitting up, tyres and waſts the *animal ſpirits*, keeping them too long upon *duty*, *debilitates nature*, changeth the freſh flower of *youth*, heats and dryes the *body*; in time extinguiſheth natural *heat*, breeds *rheums* and *cruditeyes*, and is moſt *injurious* to thin lean bodyes.

All

All immoderate *excretions* and *evacuations* may, and do procure the *Scurvy:* So likewiſe neceſſary *evacuations* ſuppreſſed do the ſame. Excremental *evacuations* are various, proceeding from the ſeveral *offices* of *digeſtion*; conveyed out by ſeveral *channels*, and *vents*; which duly evacuated are no ſmall help to the *conſervation* of *health*, and are the effects of a temperate and regular *body*. The retention of them beyond due time, argue a *dyſcraſy* of *parts*, or irregular and intemperate living. Evacuations.

Seaſonable and moderate *venus*, alleviates *nature*: but immoderate *exhauſts* the *ſtrength* by *effuſion* of *ſpirits*, exſiccates and dries the *body*, hurts the brain and *nerves*, dulls the *ſight*, debilitates all the *faculties*, is a great *procurer* and *promoter* of the *Scurvy*. For all debilities and decays of nature, gives advantage to the *Scurvy*.

Paſſions of mind.

Man conſiſts of *ſoul* and *body*. The firſt more noble and *active*; the ſecond inferior and *paſſive*. The firſt *rules* and

and *governs*; the ſecond is fit and ready to receive and *obey* theſe *impulſes*. *Health* is the *integrity* and *perfection* of their conjunct *operations*; *ſickneſs* puts them by the *integrity* of their *actions* and their *performance* is depraved, deficient, or altogether fruſtrate and impeded.

Sickneſs ariſeth ſometimes from the *fragility* and *dyſcraſy* of the body; ſometimes a *ſound body* is diſeaſed, by a *diſtempered mind*. The *ſoul* and *body* are ſo linked and conjoyned in *partnerſhip*, that the *diſorder* or *decay* of the one, redounds to the *prejudice* and *diſcompoſure* of the other. A diſeaſed *body* takes of, and abates the *activity* of the *ſoul*; and a diſturbed *paſſionate mind*, makes a youthful healthy *body*, to decay and languiſh. To ſhew you how *diſeaſes*, in every part and *faculty* of the *body*, are promoted, and many introduced, by the *dyſcraſy*, *oppreſſion* and *diſturbance* of the *mind*; would draw out this part of our Diſcourſe beyond the *limits*. I muſt therefore refer you to another Tract of mine. 'Tis ſufficient at preſent that you underſtand, the *energy* and power of the *ſoul*, to be *principal*

The Preſervation of health.

in

in every *faculty* and part of the body, deſtinyed for any *office* or *operation*; ſo that the *diſcompoſure* and *alienation* of the ſoul, or *ſuſpenſion* of *vigour*, muſt cauſe every faculty or *office* of the body, to be depraved or deficient: in particular, *melancholly* or *ſadneſs*, is a *depreſſion* of the *ſoul*, and *ſuſpenſion* (in part) of its *emanative influence* into all the parts and *functions* of the body: The *ſpirits* which are the Soul's approximate *inſtruments*, are then called off their *dutyes*, at leaſt abated in their power and ſtrength. Which if ſo, as moſt true it is; then *digeſtion*, *ſeparation*, *diſtribution*, *excretion*, *retention*, *aſſimilation*, *ſenſation*, &c. all the actions and operations of the body, vital and ſenſitive, are hereby depraved and weakly performed: Let melancholy and ſadneſs poſſeſs a man, how does he wither change and alter? The ſoul contracting and ſhrinking up, withdraws her power and vertue from all the *parts*; ſo that no *function* is performed *vigorouſly*, but faintly and deficiently; then of neceſſity the *man* muſt pine away and *languiſh*. *Melancholy.*

The appetite now is not ſo craving,

nor *digestion* so good: *sanguification* is now degenerate and vitiate, from a deficiency of *fermentation*, and the *heart* labours to transmit and give passage to the *vital stream*: Every faculty now has a clog upon it, and all the *functions* are heavily performed.

From hence, (which I might amplifie much more,) you may easily perceive how by this *passion* of *melancholy* the *scurvy* is introduced, and gains footing in all parts of the *body*. Every function and office is depraved, the *blood* and *nervous* succus degenerate from their *purity*; and change into a *scorbutick impurity* and *feculency*. These liquors whereas before they had a balsamick and a due crasis of parts; are now alienated from that state, and become dispirited, acrid, austere, tabid, ichorous, or otherwise vitiated.

A studious life.

As *Melancholy*, grief and *sadness* in a higher degree, produceth these effects; so a studious, and serious *contemplative life* tends the same way, but more slowly and remissly. What *melancholy* and grief shall effect, after this manner, in a short time; the same *inconveniencies* in a longer and continued

nued *series* and course of a close *students life*, or multiplicity of business, will be wrought in the body. As a *caution* therefore to great *students*, and those that overcharge themselves with *affairs* and business, take this advice, which elsewhere, I have set down in another work more at large.

Vita sana & longa.

A *cogitative* or *contemplative* person too intent, always or unseasonably employing the *mind* seriously and eagerly either in real or *fictitious* matters, *fabricating ideas* upon the *spirits*, disturbs and hinders other necessary *offices* and operations conservative of being; *enervates* and weakens their *performance* in duty, impairs *health*, and hastens old *age*: but those that live most *incurious*, and void of studious thoughts and *serious cogitations*, preserve the strength of nature and *integrity* of all the *faculties*, protract the *verdure* and beauty of youth much longer from *declensions* and decay; for by how much the *rational faculty* is over-busy, and *intempestively* exercised, drawing the full *vigour* of the *soul* into the exercise of that *faculty*, and robbing other inferiour *faculties* of their necessary *influential supply*,

Caution to studious contemplative men.

and *emanative* power from the *ſoul*; by ſo much the other *faculties* are impoveriſhed and abated, their *executions* grow languid and depraved; and therefore it is, that a cloſe *ſtudents life*, or intangled with too much *buſineſs* (eſpecially ſedentary) diſpoſeth and inclines to the *Scurvy*; *enervates* and debilitates *nature*, abbreviates and ſhortens its *courſe*.

Feavers and chronick diſeaſes.

Feavers and long ſickneſs are procuring cauſes of the *Scurvy*. How *feavers* and *chronic* diſeaſes terminate in and leave a *Scurvy* behind them, as their *product*, we will inquire into the matter. Scarce any ſickneſs but affects ſome *principal part* more or leſs, to alter and change from its natural *craſis*, and good *diſpoſition*. Now an *evil diſpoſition* of parts, whether *innate* or *advenient*, is reckoned in the number of *primitive* and procuring *cauſes* of the *Scurvy*: Eſpecially if it be ſome principal part, as the *Stomack* or *Spleen*; their *diſcraſy* will ſoon appear to a general *detriment* of the whole: Theſe parts being perverted by a long waſting *diſeaſe*; or more ſuddainly by an *acute* and fierce ſickneſs: They being *alienated* in their

office

office and dutyes, a *Scorbutick impurity* is generated, instead of laudable good blood and nutritive *juices*.

In *feavers* by the preternatural *æstuation* and inquietude of the *spirits*, they are wasted and consumed so, that the blood is left *dispirited*, flat and impoverished, changing its *balsamick state*, into a saline, acrid, or *acid serosity*. And whereas the saline *particles* of *blood*, being in union with the spirits were purely *volatile*, dulcid, and *balsamick*; they are now upon the *spirits desertion*, grown fixed and *embodyed*, resisting *fermentation* and *circulation*, subsiding, and afflicting several parts by their *acrimony*. Hence pains in divers parts; contractions and *convulsive* motions sometime, affecting the *nervous* and *membranous* parts.

To make these *diseases* more pernicious in their *consequents*, and that they may be sure to leave a *Scurvy* behind them; The *mode* of curing by repeated *phlebotomies*, contributes to the setting on and advance of the *Scurvy*: But this point is controverted else where in this work, therefore I forbear the prosecution here. Only this you may observe, as I have obser-

ved it often; that thoſe which have been bled much in the *cure* of *Feavers*, are much longer in *recovering* their ſtrength, and with more difficulty raſe out the *veſtigia* of their *ſickneſs*. And commonly a *Scorbutick Conſumption* is the conſequent, from ſuch erroneous methods, and unfit Medicines in the cure of *Feavers*; and alſo in the cures or rather palliations of other diſeaſes, great occaſions are given for the *Scurvy* to take place, which otherwiſe might be prevented by a more *rational courſe*, and *effectual Medicines*.

Fluxes of blood. Large *hæmorrhages* or fluxes of *blood*, are accounted by ſome to be a procuring cauſe of the *Scurvy*; And not undeſervedly. So likewiſe immoderate *Venus*; both which make a great *exhauſtion* of ſpirits, and impoveriſheth nature; in which low eſtate, the *Scurvy* hath a fit opportunity to take *radication* in the body.

Venus.

Tobacco.

Another *grand* procuring and *promoting cauſe* of the *Scurvy* is, *Tobacco*; not taken notice of by any that I meet with in print. And here we may charge much

much of the frequency, and the unwonted phænomena or ſymptomatical appearance of this *diſeaſe*, upon the late cuſtome of taking *Tobacco*. Many wonder that the *Scurvy* ſhould ſo much abound now in moſt places, and become ſo common and obvious now to every eye, that was ſo rarely taken notice of in former times, notwithſtanding ſome of its *procuring* cauſes were very *antique*. But we need not wonder ſo much, if we conſider the manner of living in former ages compared with our own; new *cuſtomes* and *dyets* beget new *diſeaſes*, or *modifie* the old ſo, as they ſeem to be new, in their unwonted manner, or frequency of *appearance*.

The *Scurvy* being altered and *differenced* now from what it was in ancient times, that the *phænomena* or *ſymptoms* of the diſeaſe in the ſyndrome and *concurrence* is not *exact* alike with the *deſcription* of the *ancients*; which hath cauſed a *doubt*, and it is held by ſome *Phyſicians*, that the *Scurvy* is a new *diſeaſe*: But it is the old *Scurvy* dreſſed in a new *garb*; which by new *procuring cauſes*, and additional *complications*, is become

more depraved, more frequent, and more enlarged: few persons but *harbour* this unwelcome *guest*.

As an *additional* procurer and great *aggravator* of the *Scurvy*, *Tobacco* comes now to be examined; since whose general use the *Scurvy* hath much increased, and is become the most *epidemical*. That this *plant* is injurious and destructive to *nature*, and consequently an *introducer* of the *Scurvy*, will appear if we consider the effects that *supervene* and follow the taking of it. The consequents or *effects* may be divided into two sorts: First such as accompany or *supervene* the first use of it: Secondly, such as follow the long and constant use of it.

Symptoms arising upon the first and unaccustomed use of smoaking it; are *vomiting*, *giddiness*, *fainting*, *drunkenness*, *sleepiness*, *depravation* of the senses, and such like as follow upon the taking of some kind of *poysons*.

Effects upon the accustomed familiar use of it are; *Salivation*, drawing a *flux* of *moisture* to the mouth, and draining the *body*; *heat*, *driness*, *lassitude* and *weariness* of the *spirits*, a *dullness* and *indisposition* of *mind* after;

ter; apt to *ſleep*, a filthy *unſavory taſt* in the mouth, a check to the *ſtomack* or *appetite*.

The latent, and more ſecret effects wrought in the body by the conſtant ſmoaking of *Tobacco* are; the inducing a *Scorbutick diſpoſition*, and promoting it where it is already *radicated*. And this is procured theſe wayes: Firſt by *depreſſing* the *ſpirits*, and *alienating* them from their *genuine propriety* and purity. Secondly, by vitiating the *ſtomack*, and depraving the *palate*. Thirdly, by *exhauſting* the dulcid good juice of the body; leaving behind and procuring the remainder more *viſcous acrid* and *ſharp*. Fourthly, by *prejudicing* and weakning the lungs and *vital parts*.

That it hath a property to depreſs and clog the *ſpirits*, is apparent by its *narcotick virtue*, cauſing a dulneſs, heavineſs, laſſitude, and diſpoſing to ſleep after the uſe of it. That it *alienates* the *ſpirits* is concluded from its *virulent nature*, and diſcord with our *nature*; and that is *argued* from the *ſymptoms* that attend the firſt uſe.

That it is noxious to the ſtomack, (the firſt *grand laboratory* of the body)

dy) is *rational* to *assert*: For, as *Tobacco* affects the *mouth* with an ill stinking taste, so the *stomack* also goes not free, but is tainted with it; which is communicated to the food received. Now considering the nature of *Tobacco* as it is; hot and dry, acrid, salt, biting, purgative or rather *virulent*, altogether *medicinal* and not *alimental*; and this constantly to *impregnate* and *tincture* our *nutrimental* succus with these *properties* and qualities; we cannot otherwise expect by length of time and daily use, but that it will shew its power and vertue to change and alter our *bodyes*, since it is not *nutritive* but *medicinal*; *estranged* and at a great distance, from the *nature* of our bodies, not fit to nourish but to alter and produce some notable *effects*.

So great a *sympathy* there is between the *stomack* and *mouth*, that the one is not affected, but the other is drawn into *consent*: If the *stomack* be foul, the *mouth* hath an ill relish: And if the *mouth* distasts any thing, the *stomack nauseats* at it: Now this great *harmony* and consent between these two, ariseth upon this account; the

the *mouth* is appointed by nature, the *ſtomack's taſter* to judg and diſcern what is fit and agreeable for the *ſtomack* to receive; and therefore the ſame *membrane* which inveſts the *mouth* and is the *inſtrument* of taſting, does alſo line the *ſtomack*; ſo that hereby what is *pleaſant* and *acceptable* in the *mouth*, is gratefully received into the *ſtomack*: now by this affinity and ſympathy, you may rationally conclude; that *vitiating* of the taſte by *Tobacco*, and tainting the *mouth* with its ſtinking ſcent, muſt of neceſſity communicate the ſame to the *ſtomack*, which takes phyſick every time you take *Tobacco*; does mix with and infect the *chyle* of the *ſtomack*, and is *conveighed* with it into all parts of the body: And having ſo great a *medicinal* power, muſt needs alter and change the body, according to the properties it is *endowed* with, by the conſtant uſe and daily reception of it.

Now *Tobacco* being of an acrimonious, hot, dry, *&c.* nature, does pervert and change the *balſamick juices* of the body into a more ſharp and fiery temper, and *alienate* them; whereby

whereby they are not so *amicable* and fit for *nutrition*, as many *Scorbutick Tobacconists* do evidence upon examination, and their *constitution* changed by the evil use of this *plant*; and it is very reasonable to expect it and impute such *alterations* to the use hereof, since they are the proper *effects* of such a *cause*. The more remarkable discovery and frequency of the *Scurvy*, may well and justly be imputed to *Tobacco*; since of latter years that *Tobacco* hath been in use, and in those *Countryes*, where *Tobacco* is much taken, it does abound most.

Although I discommend the use of *Tobacco* by smoaking it as an *injurious custome*, yet I highly applaud it as very *medicinal* being rightly used. I remember about 15. years since, a Patient of mine in *Darbyshire*, fell into a great *paroxysm* of an *asthma*, almost to *suffocation*; I exhibited a dose of the syrup of *Tobacco*, Which gave him present help, and within a few hours was relieved, that he could draw his breath with much ease and freedom. And about a year after, at *Maxfiled* in *Cheshire*, I cured a Gentlewoman of an *Ulcer* in *ano* of 7 years standing,

ſtanding, chiefly with the Ointment of *Tobacco*; and although other things were uſed yet I *aſcribe* moſt of the cure to that *unguent*. And in many other caſes *Tobacco* is of good uſe; which I have experienced. But ſmoaking of it it I find it to be hurtful, if it be *cuſtomary*. I ſhall not be ſo ſtrict and ſevere againſt the uſe of it, as to forbid all perſons the ſmoaking it upon any ſcore whatever; for that which may be uſed at certain times as *medicinal* upon juſt occaſions requiring, in ſome *perſons*; may prove very bad and pernicious upon the conſtant and *general uſe*. And this is the caſe of *Tobacco*.

Tobacconiſts, whom cuſtome hath enſnared and brought them to delight in it, are willing to be perſwaded and deluded, that it is good and wholeſom, at leaſt harmleſs. The pretences which they urge in *defence* of it, are ſuch as theſe: ſome plead for it, and uſe it after *meat* as a help to *digeſtion*, and therefore take it as a good remedy againſt a bad *ſtomack* and weak *digeſtion*.

To this I anſwer: They are much miſtaken herein; not diſtinguiſhing between

between *digestion* and *precipitation* of meat out of the *stomack*: *digestion* is not performed but in due time; by *retexture*, *alteration*, *fermentation* and *volatization* of meat; and till then is not fit to pass out of the *digestive office*, which requires some hours more or less, according to the nature of the food received, of *facil* or *difficil digestion*: now that which provokes the *stomack* to a *distribution* of *semi-digested chyle*, and unloading it self before *digestion* be finished and perfected; offers great injury to the *body*, (and this is the case of *Tobacco* by its *laxative stimulating properties*) which error committed in the first digestive office, is not corrected nor the damage recompenced by the acuteness and strong *elaborations* of the sub-
Aphorism. sequent *digestions*: and for this reason in part, the *Scurvy* is procured hereby.

Some take *Tobacco* for refreshment after labour, and *divertisement* of *serious thoughts* being tyred with *business*, *study*, and *musing*. True it is, *Tobacco* puts a *suspension* upon serious thoughts, and gives a *relaxation* for a time in some persons: others *contemplate* and run

run over their business with more delight by the help and during the taking of a Pipe: But both these persons though seemingly *delighted* and *refreshed* for a short time; yet afterwards the *spirits* are *laffated* and tyred, they are more *flat*, *dull* and *somnulent*, when the Pipe is out; this was but a *cheat*, the *spirits* were not truly *refreshed*, *invigorated* and *re-inforced*, as Wine does enliven and make brisk the *spirits* by affording and *communicating* an *additional supply*; but by the fume of *Tobacco* the spirits are a little *inebriated*, and *agitated* by another motion than their own; which is a seeming *refreshment* and short, not real *substantial* and lasting.

Others plead for *Tobacco* and take it as a remedy against *rheums*; because a great *dryer*, and *exhauster* of superfluous moisture. To evince the error of this *opinion*, consider what is the cause whereby *rheumes* and *crude moisture* in the body do abound; and then you will plainly see, whether smoaking *Tobacco* be a proper and likely *remedy* to prevent or oppose it. *Phlegm* and *superfluous* moisture does arise and abound in the body from a *deficiency*

and

and *debility* of the *digestions*; as also impediment or *impotency* of the *expulsive faculty*, that the remainders after *digestion* be not *transmitted* by the common *ductures*. Now that this fume of *Tobacco* gives no *roboration*, add no *strength* to the *digestive faculties* having no *symbolical* qualities to comply with, and assist them, is very plain. Also that *separation* and *expulsion* of superfluous moisture by this fume, is not promoted and *transmitted* through the more commodious *ductures* and passages appointed by nature for emission; only a *salivation* by the mouth is procured, which brings no *advantage* but *detriment*; for, this flux of moisture does not arise as *critical*, from the *impulsion* of *nature* separating and *protruding*; but from a *promiscuous attraction* of *fluid* moisture (by vertue of its *acrimonious heat*) as well the laudable *util* succus, as the *degenerated* and *superfluous*: So that constantly draining the body of this dulcid serosity, must cause many *inconveniencies* through the want of it; in as much as it is very serviceable to the body, in the integrity of its nature; but being *alienated*; is then

reduced

reduced, or vented by better means, nature concurring with the *medicine*. But admit this did attract only *excrementitious moiſture* (which it does not) yet conſidering it *vitiates* the *ſtomack*, and *impregnates* the *chyle* with its evil *properties*, 'tis much better to forbear than to uſe it; that *benefit* would not *recompenſe* this *injury*: And further; that which is a preventing or *curative remedy* of ſuperfluous moiſture, rheum, or phlegmatique matter, applyes *a priori* to the *digeſtions*, the *ſprings* from whence ſuch effects do ariſe; not *a poſteriori* to the *producted* matter, which this ſume ſeems to pump out, but does not ſtop the *leak*; is therefore no *radical Medicine*: and they that ſmoak *Tobacco* upon this account, as a great dryer, an *exhauſter* of *ſuperfluous moiſture*, are much deceived in the expected *benefit*; it only brings a current of *moiſture*, which ought to be expended otherwiſe; but it abates nothing in the *Fountain*, or *Springs*; rather *augments* and makes an overflow, (for the reaſons aforeſaid) as *Tobacconiſts* do evidence by their much ſpitting.

Some may ſay; I never took *To-* *Object.*

bacco, and yet I have the *Symptoms* of the *Scurvy* as bad as any, that have taken it.

Anſ. This may be ſo; from other great *procuring cauſes*; and yet *Tobacco* notwithſtanding may be one great *procurer* in other perſons. The *Scurvy* does not require all the procuring cauſes to concurr in its production; but ſometimes one, and ſometimes another is able to do it: and although you take no *Tobacco*, yet perhaps your *Parents* did, or theirs; and is ſufficient to make you fare the worſe: bad cuſtoms and abuſive living, extends farther than the *perſon* ſo offending; it is *tranſmitted* to their *off ſpring*, as in another work I have noted in theſe words.

Tutela ſanitatis. *But yet, the crime were leſs if only to themſelves the prejudice did extend, but alſo to poſterity their diſeaſes are propagated; the Children having impreſſed upon them, and radicated in the principles of their nature, the ſeminal power and productive vertue of inordinate and intemperate living of their genitors and progenitors; that the Children may bear witneſs to the following age, the vice and folly of their parents and prædeceſſors, recorded and characteriſed in them.* &c.

Hereby

Hereby you may understand that evil customs (as of smoaking *Tobacco*) does not injure only the *persons* doing so; but the *generation* after them are *prejudiced.* And here, by the way, we may take notice of the many *rickity* Children in this latter age, since the use of *Tobacco*, which disease was not known before the frequent use of it: *Tobacco* does *enervate* and *debilitate* the *faculties*, that we may rationally expect the *children* from this generation to be *Scorbutick*, *Rickity*, and more feeble than formerly.

Amurath the Fourth of that name, *Grand Senior* of the *Turkish Empire*; put forth his *edict* against the smoaking of *Tobacco*, and made it a *capital crime* for any that should so use it: the reason of this *severe prohibition* was, that it did render his people *infertile.* I shall not urge the inconvenience of *Tobacco* so far; but this I may *assert*, that it causeth an infirm *generation*, by *debilitating* the *parents*, and rendring them *Scorbutick*; which *impressions* are carried *in semine* to their Children, and makes a diseased *issue.* And I observed in *Virginia*, and *Maryland*, being some time in those *Amurath.*

Colonies; that the *planters* who had lived long there, being great *ſmoakers*, were of a withered decayed *countenance*, and very *Scorbutick*, being exhauſted by this immoderate *fume*; nor are they long lived, but do ſhorten their dayes by the intemperate uſe of *Tobacco* and *Brandy*.

King James.

King James, that Learned Philoſophical *Prince* of this *Nation*, wiſely conſidering the nature of this *plant*, and having a good *ſtoχaſtick* head to foreſee the inconveniencies that would ariſe to his *people*, by the ill cuſtom of *ſmoaking Tobacco*; he being the great *Phyſician* of the *body politick*, did excellently dehort his *ſubjects* (being tender of their future wel-fare) from this noxious *fume*, and writes an *Invective* againſt it: whoſe *oratory* and ſolid *arguments* were enough to have broken the neck of this *cuſtom*, had they any regard to his *kindneſs*, or ſenſe of their *own good* and of their *poſterity*.

His counter blaſt to Tobacco.

I might have enlarged my ſelf upon this *ſubject* and run over moſt *Scorbutick ſymptoms*, ſhewing how they are either firſt procured or aggravated by this *fume*: but from what hath been

been ſaid already, it plainly appears that *Tobacco* is a great procurer and promoter of the *Scurvy*, in as much as many *Scorbutick Symptoms*, are the proper effects of ſmoaking *Tobacco*. As laſſitude, dullneſs, ſomnolency, ſpitting, ill taſt in the mouth, *&c.* And although ſome few perſons, either by the ſtrength of nature do ſtrongly reſiſt the bad *impreſſions*, it ſets upon ſeveral *parts* of the body; or by the *peculiarity* of *nature* is leſs offenſive and hurtful to ſome; or brings ſome particular *benefit* (amongſt its many ill *properties*) that makes it ſeemingly good; yet inſenſibly and by time it *damageth* all; and thoſe few good *effects* in ſome few perſons, are not of validity to give it a general *approbation* and uſe, and free it from the cenſure of a great *procurer* of the *Scurvy*, but may juſtly be reckoned in that *catalogue*.

CHAP. VII.

Examination of Opinions concerning the nature of the Scurvy.

BEfore I *explicate* the nature, *quiddity*, or *eſſence* of this *Protean* Diſeaſe, I ſhall firſt *recite* the judgments and determinations of the moſt learned and *eminent Phyſicians* that have writ upon this *Subject*, to whom the moſt of our age do *adhere*, and imitate their *practice* in the *Cure*. *Sennertus* gives this *definition* or *deſcription* of it.

Sennertus Tract. de Scorb.

Scorbutus eſt prava & occulta qualitas, ſeu diſpoſitio, toti corpori, præcipue vero viſceribus nutritioni dicatis impreſſa, ab humore melancholico craſſo, ſeroſo ſeu ichoroſo, peculiari modo corrupto orta; cum ſpontaneæ laſſitudinis & gravitatis, in cruribus præcipue, ſenſu; pectoris anguſtia & reſpirationis difficultate, gingivarum corruptione, & oris graveolentia, ac maculis purpureis in cruribus inprimis, aliiſque morbis, ac ſymptomatibus

ſymptomatibus plurimis ab eadem cauſa pendentibus, conjuncta. The *Scurvy*, is an evil *occult quality*, or diſpoſition, *impreſſed* upon the whole body, chiefly the *Parts deſtinated* for *nutrition*, ariſing from a groſs *melancholy*, or *ſerous ichorous* humour, after a peculiar manner corrupted, with *laſſitude* and *heavineſs*, *&c.*

This *Definition* looks imperfect and unſatisfactory, although from a worthy *Author.*

An evil occult Quality.] That gives us no ſatisfaction, in as much as it is acknowledged to be *occult* and unknown. Nor does *Quality* (if it were known) fitly expreſs and ſet forth, the nature or *eſſence* of the *diſeaſe*, being *ſeminal*, *productive* and *ſubſtantial*, having root in the principles of nature: But the following words are more obſervable. *Impreſſed upon the whole body, but chiefly the parts deſtinated for nutrition.*] The *Scurvy* though *communicated* to the whole body, and all parts may be tainted with it; yet the *principal* parts ſerving for *nutrition*, being perverted in their offices, are the ſprings that feed and maintain it: And until ſome of theſe be *alienated*

and *ſeduced*, the *Scurvy* is ſcarce ſaid to be *radicated* in the body; for, theſe ſtanding firm, nature is maintained and kept up; and although by bad *diæteticks*, the body may have injury offered, yet until the *digeſtive* offices, by frequency and cuſtom be *depraved* and *conſent*, the other ſlight *impreſſions* is ſoon raſed out, and nature by her own ſtrength does purifie the body, ſo long as the vigour of the *principal parts* remain in integrity.

But this impreſſion, he ſaith, *ariſeth from a groſs melancholy, or ſerous ichorous humor.*] To me it ſeems more reaſonable, that this *groſs melancholly* or *ſerous ichorous humor*, when any ſuch depraved humors are in the body, are rather *effects* and *products* of the *Scurvy* than the *cauſe*: For there may be a *Scorbutick impreſſion*, upon the parts, and the *Scurvy* may *exiſt*, long before any ſuch humour be generated: And examine all the *procatarctick* and primitive *cauſes* of the *Scurvy*, you may perceive their influence and power diſcharged upon thoſe parts where no ſuch humor is *generated*; and therefore cannot be the *antecedent internal cauſe* as generally laid down

down in this *definition*: But when such a depraved humor is generated in the body, we may say more properly then, the *Scurvy* is in *facto esse*, not *in fieri*; for it hath taken root and produceth this *effect*. Now as this depraved *humour* does not rest in one place, but is *communicated* and conveighed from one part to another by *circulation*, altering and changing those parts with its evil *properties*, and producing new *symptoms*; here is a *gradual progress* of the *Scurvy*, it does now spread and enlarge its *quarters*; and this humor which is *causa conjuncta Scorbuti*, may be *causa antecedens* in respect of those parts it does *pervert* and *infect* afterwards.

Ecthius, in his *Epitome* of the *Scorbute*, describes it thus. *Ecthius de Scorb.*

Scorbutus est morbus Splenis, aliquando obstructi, aliquando intemperati, aliquando cum incipiente Schirro, qui præpedit ejus attractionem, ac consuetam atribilariæ redundantiæ sequestrationem, ex hepate venisque, eoque humore universum corpus vitiat, sed peculiariter crassiore fœculentia crura contaminat, atque evaporanda acredine gingivas inficit.

He

He ſaith, the *Scurvy* is a Diſeaſe of the *Spleen*, obſtructed, diſtempered, or hardened, which hinders the *attraction* and ſeparation of abounding *Melancholy* from the *Liver* and *Veins*; by which *humour* the whole body is vitiated, the groſſer part *affecting* the thighs, the thinner *acrid* part the *gums*.

A Diſeaſe of the Spleen obſtructed, diſtempered or hardened.] Here the *eſſence* of the *Diſeaſe* is ſet forth and defined, *per effectus ſeparabiles a morbo*; by *effects* which may, or may not be, and the *Scorbute* in being: and it is improper to *define* a thing *eſſentially*, by effects which are but reſults *a poſteriori* and ſeparable; and that which is an *effect* cannot be *conſtitutive*, the *ratio formalis* of the thing from which it doth proceed.

Which hinders the attraction and ſeparation of abounding Melancholly.] Here the *Spleen* is ſuppoſed only a place of *reception* and *ſink*, to drain away excrementitious *Melancholly* from the *Liver* and *Veins*; too inferiour an Office for ſo noble a Part; nor is it *fabricated* or *ſituate* conveniently for ſuch a uſe; having no ample *cavity* for reception,

ception, nor a fit paſſage for *emiſſion* of ſuch an excrement, being *intertexed* variouſly with ſmall veſſels, having *inſertions* into each other, and doors of *communication*, argues a place of *elaboration*, and *grand* affair, not a draught or ſink for venting an *excrementitious humor*: If it had been deſtinated for ſo mean ſervice, why was it contrived with ſo many *arteries*? that no other Part is furniſh'd like it, but that it was appointed for higher *purpoſes* and *deſigns*, and therefore is plentifully ſtock'd and enriched with *vital ſpirits*.

Brunerus in his *Tract* of the *Scurvy* deſcribes it thus. *Proprie hic morbus eſt affectio Lienis, in quo acervato & leviter putrefacto humore melancholico, qui a ſanguine ſeparatus ad lienem tranſmittitur, pars tenuior ſeu effervescens, effertur ſurſum & obſidet gingivas, tanquam tenerrimas oris partes, & putredini maxime obnoxias, eaſq; inficit & erodit, imo etiam emollit: craſſior decumbit ad crura* —— He ſaith, this diſeaſe properly is an effect of the *Spleen*, in which a *putrid melancholly humor* is accumulated, ſeparated from the blood, and tranſmitted thither. *Brunerus Tract. de Scorb.*

He

He makes the *Spleen* to be *ſedes morbi*, the part *primarily* affected, and yet the *peccant humour* is only tranſmitted thither; and ſo it is but a part *recipient*, as other parts of the body are; *pars infeſta*, not *primario affecta*, from whence it doth ariſe.

Nor is this diſeaſe always ſeated in the *Spleen*, though very often it hath its chief *reſidence* there; but it may be *radicated* in other parts, and the *ſpleen* diſcharge its *office* well; for where the *primitive cauſes* of the *Scurvy* make *impreſſion*, there is a foundation laid: Now examine thoſe *cauſes*, you will find their *influence* diſcharged upon other parts, and not the *ſpleen* only, or *primarily* injured, but other parts ſometimes, are firſt *dyſcraſied*, and lay the foundation of this *diſeaſe*; and therefore not properly called the diſeaſe of the *Spleen* without any *exception* or *limitation*. As for the *material conjunct cauſe*, which he aſſigns to be a *melancholly putrid humour*; that I have diſcuſſed, in another place following, and ſhewed the *error* of that *opinion*.

The thinner part is carried upwards, and infects the Gums; the groſſer ſettles

tles downwards, and affects the Thighs.] This distinction of thicker and thinner parts is needless; for that *degenerate Scorbutick* disposition of the *Stomack*, whether the depraved matter lodged there be thick or thin, it will affect the *mouth* and *gums*, because the stomack and mouth have one *membrane* lining both the parts; and therefore when the *stomack* is foul, the *mouth* hath a bad relish, and an unsavory taste, (which is most perceived in a morning after digestion is past;) and let any disgustful thing come into the *mouth*, the *stomack* nauseats presently, and is ready to *vomit*, although it be not swallowed down; and this is by reason that the *mouth* and *stomack* have one membrane investing both the parts, that the one cannot be affected, but the other immediately *consents* and *participates*, by reason of the *continuity* of the *membrane*; which is more or less manifest according to the greatness of the *cause*: So that thickness or thinness of the matter is not to be taken notice of, but the effects the same be it thick or thin.

And for that he saith, the grosser part

part affects the thighs, the reaſon is as light as the former, though not to be *reſelled* by the ſame *Argument*: I ſhall not anticipate my intentions in another place, but refer you to a future opportunity in the diſcourſe following, where this point is cleared.

Eugalenus, lib. de Scorb. *Eugalenus*, in his Book of the *Scurvy*, treats largely of this *diſeaſe*, in whoſe foot-ſteps moſt *Writers* ſince have trod, or digreſſing but a little from his *Opinions*, have relied on him as the beſt guide in tracing this *Diſeaſe*.

His *Obſervations* are many in his own *Practiſe*, upon ſeveral perſons variouſly afflicted with this *diſeaſe*, and brings in ſeveral infirmities complicated with it, worth your reading. Notwithſtanding the *baſis* and foundation that he layes, and whereon he makes this *diſeaſe* to be founded, is not firm; and that is, *Humoris Melancholici exuberantia*, abounding *Melancholy*: to which ſomething hath been ſaid already that I ſhall not repeat, and more to be ſaid in another place, in ſatisfaction to this error. And in his *Determination* of the *internal cauſe* and generation of the *Scurvy*, he delivers his judgment in ambiguous wavering terms,

terms, not *positively* and *resolvedly*; but with some kind of *dissatisfaction* and uncertainty: his words are these.

Interna hujus morbi causa, Melancholici humoris exuberantia censetur, ex jam dicta vitæ victusque (scilicet inordinati) ratione acquisita: qui circa lienem & hepar, vel intermediis inter hæc & ventriculum spatiis, vel in ipsis etiam venis, quod puto, coacervatus; propriam & huic morbo familiarem corruptionis formam subit, qua adjacentia, vicinaque viscera, sua vel substantia, & contactu, vel qualitate & fumis depravat, naturalem eorum temperiem corrumpendo, donec in contagii communionem consentiant: Where you may observe by *censetur, vel puto,* his Determination to be with *hæsitation* and uncertainty.

In finding out the *Scurvy*; for his *Diagnostick* signs, the *Pulse* and *Urine* are his two great discoverers; that in most of his *Observations* the one or both confirms his *Opinion*, and relies upon their *signification:* both which are very uncertain; for, there is no particular *Pulse* or *Urine* peculiar to this Disease, but almost all Pulses and Urines

Urines may be in *Scorbutick* persons, as most Diseases may be complicated with it: and therefore their judgment is very fallible and uncertain that depend on these signs.

Others there are who have written *Tracts* of this disease, as *Ronsseus*, *Wierus*, *Sal. Albertus*, *Martinus*; whose Judgments and *Opinions* are involved and agree in the main, with those already recited; that I need not spend time in examining them apart: nor have I recounted their failings, intending their dishonour (whose names I think worthy of memory, for their *Learning* and *Labours* in the *Medicinal Faculty*) *humanum est errare*: but that it is the duty of every one, to examine the *Principles* and *Tenents* of our *Predecessors*, and not subscribe to the *Authority* of any, when a clearer light of Reason, confirmed by *Experiments* and due *Observation*, commands a *recession* from their *Opinions* or *Practice*.

Amicus Eugalenus, amicus Sennertus; sed magis amica Veritas.

Since

Since my undertaking to examine the *opinions* of the beſt *Authors* concerning this *diſeaſe*; to view their ſeveral *deſcriptions*, *diagnoſticks*, *prognoſticks*, *cauſes*, *therapeuticks*, and to report my *ſentiment* touching the ſame: Dr. *Willis* after this; aſſumes the buſineſs in hopes to give a better account to the World then what had been done before, in laying open this *diſeaſe* according to ſome *hypotheſes* of *fermentation*; and comparing the *degeneration* of the *blood* in *Scorbutick* perſons, with the different ſtate and alterations in *wines*: and having formerly ingaged my ſelf (before this Author writ) to inquire into the ſeveral judgments of the ableſt Writers upon this ſubject; I am likewiſe now obliged to examine this Author alſo, and ſet forth wherein we differ conſiderably in this matter. What farther light, or new diſcovery, (that will abide the teſt) this *Learned Author* hath given not noted before, we will take notice of and own it from him; wherein we diſſent, and are otherwiſe perſwaded, I ſhall *diſcuſs*, and *traverſe* thoſe *opinions* for my own ſatisfaction, and others that deſire a Dr. *Willis.*

right understanding and true account of the *subject* now in hand.

This *Author* hath not trussed up the *Scurvy* in one *definition* or short *description* as former writers have done, by giving a *compendious synopsis* and *succinct* judgment of it; therefore I must glance my eye through the whole *tract* of his *discourse*, and note the *heads* as I pass along.

Dr. *Willis Tract. de Scorb.* In the *front* of that *tract*, stands the *nomenclature* of this disease, mentioned only, but waves observation upon it. The *catalogue* of *symptoms* given in by him, are according to *Eugalenus*, and *Sennertus*; but one more is added, *crepitus ossium*, snapping of the bones in the *joynts*, upon bending of any part; and he makes mention of one so *affected* with this *symptom* of the *Scurvy*, that could not be cured. For my own part, I have seldom had any *Patient* that hath complained upon that score, or mentioned it to me.

Pag. 205. In the *enumeration* of *procatarctick* and remote causes of the *Scurvy*, this *Author* agrees with former *writers*, and their general opinion in this *point*.

Next, the *material cause* comes to be spoken of; wherein is observable the bias's

biaſs of his opinion which we are to take notice, as the firſt *conſiderable* (to *diſcuſs* and *examine*) and a *cardinal* point to which much of his diſcourſe refers to and depends on. And here I muſt *recite* ſome part of his own words. *Ex his* (having named the primitive and occaſional cauſes) *circa Affectionem Scorbuticam obſervandis, manifeſto liquet, materialem hujus morbi cauſam, haud in privato quodam loco, aut ſingulari minera contineri, ſed per totum corpus, & ſingulas ejus partes tum intus, tum extus diffundi:* How theſe words come in, by way of *inference*, or neceſſary *conſequence* from the preceding *enumeration* of *procatarctick* cauſes, may deſerve a *quæry*; but that I paſs: 'Tis the words *ſubjoined* ſtart the controverſy. *Unde ſtatim colligere licebit, Miaſma Scorbuticum vel in ſanguine, vel in ſucco nervoſo, aut ſimul in utriſque fundari.* *Tract. de Scorb. pag. 205.* *Ibidem.*

Diffundi and *fundari* ſtand at a great diſtance one from the other, and a great difference between them. In the firſt part of his words, is *aſſerted*, that the *Scorbutick* matter is not contained in any particular place of the body, but is *diffuſed* into all the parts,

and true it is: but the *illation* from thence, that the *Miaſma*, the *Scorbutick* impurity ſhould be *founded* and *radicated* in the *blood* and *nervous juice*, remains to be proved. Although this *degenerate* matter be communicated and conveighed into all the parts, by the *blood* and *nervous juice*; yet here is not the *ſpring* and *fountain*: Theſe are but the *rivulets* of *propagation* and *diffuſion*: that the blood and *nervous juice* is tainted and depraved in *Scorbutick perſons*, none I ſuppoſe will deny; but that theſe *liquors* ſhould be the *foundation* and ſeat of the *diſeaſe*, as in the next page alſo this *Author* hath repeated; I cannot aſſent unto.

Pag. 206.

That moſt *Scorbutick Symptoms* do ariſe *mediatè* from the *blood* and *nervous ſuccus* is very evident; but that they ſhould *emane* thence *fontaliter* as the ſourſe and firſt riſe of production, is what we clearly deny. That the *blood* is alienated from its *balſamick nature* and due *craſis*, by heterogeneous admixture and want of defœcation, is certain: witneſs its inordinate motions and *æſtuations*, *ſpots* and *eruptions* upon the *skin*. From this degenerate and vitiated *ſtream* the

nerves

nerves are fed with an impure ſupply; hence by their *maleaffectedneſs*, *debilities*, *pains*, *convulſive motions*, *laſſitude* &c. are the *products* and *effects*; but notwithſtanding theſe *ſymptoms* do immediately *aſſurge* from the *blood* and *nervous ſuccus*; they are but *propagating* rivulets and *ſtreams* of conveyance through the body, the *radix* of the *diſeaſe* is not here; the *Scurvy* is not *founded* in the *blood* and *nervous ſuccus*, they are apt *recipients* of *contamination*, not the ground work of *radication*.

That which is the *foundation*, *ſeat* or *ſpring*, hath no *precedency* of *origination*, *in eodem genere cauſarum*: but *Scorbutick* mutations of the *blood* and *nervous ſuccus* ariſe from precedent vitiated *digeſtions*, the *ſpring* from whence theſe flow pure or impure: Therefore the *radix* or *ſedes morbi* is in the *digeſtive offices*, the *laboratories* of *tranſmutation*, from whence the *liquors* of the body do come forth well digeſted and pure, or degenerate and imperfect.

That there is a *ſaline* and *ſulphurous* part in the *liquors* of the body, as in many other *liquors*; (which their *Chymical analyſis* do teſtifie) and that they

are *ſaline* and *ſulphurous*, more or leſs intermittingly, and change their *ſtate* according to Age, ſickneſs, and various accidents, is moſt reaſonable to imagine: But that the *foundation* of the *Scurvy* ſhould be laid and grounded upon theſe *tranſmutations*, as their *ultimate* and loweſt *baſis* in the body of man, is not apparent to my underſtanding: For as much as a more fixed, preceding and *ſubſtantial groundwork*, is in the *digeſtive offices* the parents of ſuch *tranſmutations*. The *Scurvy* is not ſeated or *founded* in excrementitious or degenerate *humours*, but *in principiis noſtris*, in the fundamental *principles* of our *nature*. If we could imagine the whole maſs of *blood* to be let out, and the perſon live; yet the *Scurvy* might remain behind: how? In the *dyſcraſy* of *principal parts* perverted from their integrity, and deficient in their vital *operations*: in theſe *faculties* depraved are diſeaſes ſeated, and here the *Scurvy* is *radicated*, and fixed. If you look upon the *blood* and *nervous ſuccus* defiled with a *Scorbutick* impurity, you ſee the *Scurvy* in its various *production* and *maturation*; if you look

look into the *digestive offices* and their *fundamental principles* vitiated and enormous, you see the *Scurvy* in its *radication.*

Whether the *Scurvy* be founded in the blood, *primario & radicaliter*, as the principal seat of *radication*; according to the assertion of this Author we will make farther inquiry into the matter. And this we shall find out by examining the procuring *causes* of the *Scurvy*, where they chiefly dart their *influence*, and what *principal parts* they *debilitate* and injure, to lay a *Scorbutick foundation.* Dr. *W. Tract de Scorb pag.* 206.

First, *Mala victus ratio*, bad dyet is owned by all to be a *primitive cause* of the *Scurvy*; now this meat and drink have their tryal in the *digestive offices*, whether they be good or bad; and according as they are *transmitted* hence in goodness is the *blood* and *nervous juice* affected with the same: So that the injury of bad dyet is first impressed upon the *digestive offices* (*here is the seat of radication*) perverting their functions; and if the *blood* be tainted and alienated hereby, it is *secundario* by reception, and issuing from thence; not *primario*, as *fons & origo.* Bad dyet.

Melancholy and a ſedentary life.

If a man eats good meat, and drinks good drink ſeaſonably and moderately; notwithſtanding he becomes *Scorbutick*, by reaſon of ſome other *procuring cauſe* hapning, as *melancholly* and a *ſedentary life*: Where ſhall we find the *parts* primarily affected and foundation of the diſeaſe? Not in the *blood*, not in the *nervous ſuccus*, but in the *digeſtive offices*, in the *grand laboratoryes* of the body, from whom the *alimentary liquors* have their *perfection* or *defections*; had they diſcharged their *functions* duly, the *blood* and *nervous ſuccus* would be pure and good. But being weakned, depraved and impedited by the *procuring cauſes* named, the *juices* of the body degenerate and alter from their *purity*, by a vitious ſupply and feculent *additions*.

A *melancholy* inactive life produce the *Scurvy* after this manner; the *ſpleen* and ſtomack are principally injured thereby, and do not perform their functions vigorouſly; from whence (*here is the ſeat of radication*) defects in *fermentation* do ariſe in both offices; the *blood* degenerates thereby, and is become *Scorbutick*; which impurity and *alienation* is not the

the *foundation* of the *Scurvy*, but the *propagation* and *production* of it; the branch and not the root. In this *habituated melancholy*, the *ſoul* which is *vitæ directrix & magiſtra*, becomes torpid and deaded, is contracted and reſtrained in power, that ſhe does not *exert* and *irradiate* her *vertue* ſo freely and vigorouſly into the *principal offices* of the body, whereby their *functions* are weakly and depravedly executed: and where the *ſunctions* are performed unduly and *deficiently*, there is the *Scurvy radicated:* now this *procuring cauſe* of *melancholy*, affects the *ſpleen* mainly (accounted the *ſeat* of that *paſſion*) and the *ſpleen* which ſhould elaborate the *blood*, and help to *ferment* it, is by that paſſion loaded and clogged; hence the blood is not ſo refined, but tranſmitted *feculent* and impure; the *ſpirits* alſo being inactive and dull, do not *circulate* the blood ſo freely and briſkly, but is apt to become *ſtagnant*, and paſſeth through the ventricles of the *heart* heavily; which cauſeth *melancholy perſons* to complain of a weight and heavineſs about the region of the *heart*, with a great oppreſſion, that makes them

them often ſigh to throw it off.

Hereditary Scurvy. If the *Scurvy* be propagated by *hæreditary traduction*, where can the *ſeminary* of this diſeaſe be, but in the *fundamental principles* of nature; whereby the *craſis* of ſome *principal part* is naturally diſpoſed and framed to propagate and promote the *Scurvy* in that body.

When the *Scurvy* is traduced from parents in *ſemine*, it is planted in the *ſeminal prrinciples*, and *connatural* with that perſon: And here is the difficulty of an *hæreditary Scurvy*, that it is mixed and radicated ſo in the *foundation* of their being, as not to be *raſed* out; and not founded in the ſtream of *blood*, which more eaſily admits of *depuration* and *reduction* to integrity.

Contagion. If by a ſlight *contagion ab extra*, the blood receives a taint, it ſtayes not there long, except ſome *principal part* be perverted thereby; and there it does *radicate* and ſeat it ſelf; and not till then does it *faſten* in the body, but is *fluctuating* and eaſily expelled and ejected by the ordinary *purification* of *nature*, and her own helps and ways of *emiſſion*: but having

ving gained a *Fort*, ſome *principal part* or *office*; does there ſeat it ſelf, perverts the *craſis* and *function* of that part, alienates the *Archæus* and *director* of that *office*; which *faculty* being ſeduced, here is the *foundation* of the *Scurvy*, and from hence it ſpringeth, as the *radix* of the *diſeaſe*.

Long *Feavers* and *Chronick diſeaſes* are reckoned amongſt the *primitive Cauſes* that introduce the *Scurvy*: and how do theſe procure the *Scurvy*? by changing the *Craſis* and vitiating the *tone* of ſome principal *part* wherein ſuch diſeaſes were ſeated; that being perverted from the *integrity* of their *nature* and *office* by long ſickneſs, and *dyſcraſy*; do then act in a *Scorbutick* deformity, much different from the *rectitude* of their *functions*; From whence *Scorbutick Effects* do enſue. And ſometimes by long ſickneſs the *parts* are ſo altered, the *veſtigia* and *impreſſions* thereof ſo grounded in them, that with much difficulty, if ever, they be reſtored again which makes the *Scurvy* in ſuch perſons ſo *contumacious* as often we find it. Now had theſe *impreſſions* been

Chronick diſeaſes.

characteriſed

characteriſed upon the *blood* and *humours* only, they being in a fluctuating *ſtate* always, by daily *defæcation* and new *additions*; Their *impurities* and *contamination* are carryed off, and waſted continually, by the induſtry of nature, if ſhe be ſtrong and firm in her foundation and *groundwork*; if her *principal parts* keep their due *craſes*, and diſcharge their *offices* well. *Helmont.* And therefore ſayes *Helmont* very truly; *Natura corroborata, eſt morborum medicatrix.* If nature be right and ſtrong in her *fundamentals* and ſolid *parts*, the ſtreams that flow in the veſſels though defiled and impure, undoubtedly ſhe will purify, and free her ſelf, with ſome little helps and *provocations* to it, as a prudent *Phyſician* ſhall think fit in ſuch a caſe. But if the miſchief lye in the *dyſcraſy* of a *principal part*, the caſe is much altered, as being more perverſe and worſe to be dealt with. And from hence is the *contumacious* condition of ſome *Scorbutick* perſons, that do not yield to ordinary *Medicines*, and ſlight undertakings; but requires time with *potent* and *efficacious* means, *judiciouſly* exhibited, And a *tractable Patient.*

Great

Great *hæmorrhages* and large *profu-* *Fluxes of blood.*
ſions of *blood*, is a *primitive cauſe* aſ-
ſigned to introduce the *Scurvy*. Now
this does not defile the blood *poſitivè*,
but *conſequenter*; not abſtractly con-
ſidered in its own nature: it only a-
bates the quantity, that if the *blood*
be good before, the remainder alſo is
good: How comes the *Scurvy* in then?
Thus: *Nature* muſt ſupply this loſs and
fill up again; but the *blood* which
ſupplies, is not ſo good and pure as
that which was prodigally ſpent (*here*
comes in the Scurvy.) And why is not
this new *blood* ſo good? Becauſe the
ſanguifying faculty or office of *ſangui-*
fication, is debilitated and made de-
ficient by ſo great an *effuſion* of *vital*
ſpirits, that it does not perform with
that *vigour* and *integrity* as before, but
depravedly and deficiently.

From hence it appears that the *fa-*
culty or *office* of *ſanguification*, and
principal *parts* contributing to that
work prævioufly, are the ſeat and *ra-*
dication of the *Scurvy*, and here it is
founded from the *primitive cauſe*
aforeſaid. If the *vital ſtream* be im-
pure we muſt impute it to the nature
of the *fountain*, from whence it pro-
ceeds;

ceeds; if the blood be bad, we muſt aſcribe it to the *office* of *ſanguification* and the *dyſcraſy* of parts contributing thereto, and relating to its *preſervation*.

Let the *Scurvy* be introduced by this or that *primitive* cauſe, if it faſten in the body and grow to any heighth, it is *planted* and *radicated* in ſome *principal part*, and in the *principles* of that part; not in this or that *humour*, *chyle*, blood or *nervous ſuccus*; but only *ſecundario*, iſſuing as the *product* and *effect per tranſmutationes erroneas*; not as the fountain, but the ſtream tincted with a *Scorbutick Miaſm* from thence. Hereby we may underſtand why two perſons *dieting* and ordering themſelves alike, yet the one ſhall be *Scorbutick* and the other not: For although the *primitive cauſes* are equal to them both, yet the capacity of the *ſubjects* are different: *quicquid recipitur, recipitur per modum recipientis*. The one hath the *principles* of his body more firmly and equally *radicated*; conſentaneouſly operating, and not eaſily perverted from integrity: The other hath his *faculties* unequally diſtributed *co-operating*

Axioma.

ating difformiter; and, apt to *declenſion*, are eaſily ſeduced from the *rectitude* of their *functions*, from the ill *craſis* and *texture* of parts, and the indiſpoſition of the *Archæus* or regent power thereof. *Nature* does not equally diſtribute her *power* into all *individuums* alike, nor into all *parts* of the body in the ſame perſon: but one is ſtrong and well tempered; another is weak and *dyſcraſyed*. And from hence the different *propenſity* of bodyes to *diſeaſes*; hence the *variegation* and *Protean* ſhapes of the *Scurvy*; and from hence the *difficulty* of their cures are adjudged, from the *dyſcraſy*, *atony*, and *perverſeneſs* of parts to be reduced to the integrity of their *functions*.

The *primitive cauſes* which we have briefly run over, make preparation for the *Scurvy*; the *vital* and *fundamental principles radicates* it; the *blood* and *nervous ſuccus* propagates and ſpreads it by way of *ramification*; the *pains*, *ſpots*, *tumors*, and other apparent *ſymptoms* ſhew its *fructification* and *maturation*.

From theſe *conſiderations*, and cogent reaſons, I am perſwaded to aſſert

Dr. *Willis.* ſert contrary to this *Profeſſor* that the *Scurvy* is *radicated* in the *principal parts* of the body, the *laboratory's* of digeſtion and *tranſmutation*; is ſeated there *primario & fontaliter*; is in the *chyle blood* and *nervous juice ſecundario*, by reception and *contamination* iſſuing from thence, as propagating *rivulets* to diſperſe it through the *body.*

The next *conſiderable* we are to take notice of; is the *analogy* this *Author* makes uſe of to *explicate* the nature of the *Scurvy*: Comparing *Scorbutick blood* with the various *ſtate* and alterations in *wine.*

Tract. id. Pag. 206.

Now that which does *illuſtrate* is ſuppoſed and ought to be more *intelligible* and *patent*, than that for which it is brought; but Wines are equally obſcure with the blood in their cauſes of alteration and degeneration; and therefore to me it is *ignotum per æque ignotum adumbrare.* And he that is moſt converſant among *Wines* as *Vintners*, obſerve their alterations, but the true *Philoſophy* in theſe caſes they know not: the *Ars* they ſee, and by *traditional advice* and obſervations can cure or *palliate* ſome of their faults; but

but the διότι they underſtand not; the *elevation* and *depreſſion* of *ſalts* and *ſulphurs* of Wine, is as ſtrange to them as the cauſes of degeneration in the blood of *Scorbutick* perſons. And what does this inform a *Philoſopher?* That both do change and degenerate is very plain, but the *modus* and *cauſæ*, the *manner*, and the *intrinſick cauſes* or *principles* upon which they move, are equally obſcure.

Scire, eſt per cauſas cognoſcere: And ſo far does the *analogy illuſtrate* and promote our knowledge, as the cauſes of the one, are more *conſpicuous* than the other: Now if the cauſes of the alterations and *degenerations* of *Wine* be no more open to our underſtanding, but remain as difficult and abſtruſe as the *cauſes* of the variations of the blood; then is the analogy fruſtraneous and of little uſe. The *aſſumption* from hence is true; the concluſion neceſſarily follows. The *ſimilitude* of wine and blood, in their *dyſcraſyes*, to *parallel* each other, hold no farther than the *quod ſit*; and that but in ſome of them, which other liquors alſo do reſemble: But if we dive into the reaſons of *ſulphurs* and

ſalts in this or that ſtate, cauſing ſuch *alterations*, we may as ſoon find them in the one as the other, without the aſſiſtance of either.

That the changes and alterations of *wines* and *blood* may conſent and agree, or be ſomething alike in ſome *degenerate quality* or *property:* That there may be a parity and proportion as to ſome particular of their *variations* and *degenerations* is reaſonable, and demonſtrable; but their occaſional and *procuring cauſes* are various; and the *eſſential cauſes* of ſuch tranſmutations depending upon different *principles*; as alſo their *curations* and *reductions*, in the method and means, are very different and hold little proportion of *ſimilitude:* If ſo, then the *doctrine* of *analogy* between *Wine* and *Scorbutick blood*, will afford but little aſſiſtance in the *reduction* of the one or the other to their *priſtine ſtate* of integrity; and *conſequently* can do us little ſervice, in demonſtrating or curing the *Scurvy*.

This Profeſſor goes on with the Similitude thus: *Furthermore for two cauſes chiefly, even as Wine, ſo the Blood is diſtempered; either ſomething extraneous*

Dr. *Willis Tract. de Scorb. Pag.* 206.

neous and not truly miſcible, or nor apt for commixture, is added and confounded with them: or becauſe the craſis of either liquor, or temperature is perverted: That is, in as much as one or other of the elements which ought to be ſupreme is ſuppreſſed; others which ought to be ſubjugated, are exalted.

The firſt part of this aſſertion, the *Author* well explains and clears in the following words. *We obſerve in Wine that when the fæces being ſeparated and præcipitated to the bottom, they be ſtirred up, and mixed again; or when any heterogeneous matter, as fat or other exotick ſulphur be caſt into the Veſſel, the Wine that was calm and ſtill, is now much troubled by bubling and fermenting, which unleſs it be checkt ſoon, the Wine is in danger to be ſpoiled: Then,* ſaith he, *pariter* &c. *in like manner there are many things that do not commix with the blood, which diſturb its circulation, and hinder the common order and courſe, which extraneous matter if not timely removed perverts the craſis of blood.* This is true, and the reaſon will hold in other liquors as well as Wine, which naturally have a deſire to preſerve their own bodies *Ibidem.*

intire and free from *extraneous commixture.*

Now the *doctrine* from hence we muſt obſerve, is this; that *Chylification* and *prævious alterations* of the alimentary *ſuccus*, if it be not fitly *tranſmuted*, and duly prepared, to *incorporate* and joyn with the *blood*, amicably and *conſentaneouſly*; then a diſturbance ariſeth in the *blood*, to ſeparate and ſequeſter this *diſcordant matter*; which if nature be vigorous and able to do it timely, does recover its former *ſtate* and *condition*; but if otherwiſe, does then alter and *degenerate.* And here we muſt take notice, that this *diſcordant matter* may happen two ways; either by the *indiſpoſition* and unfitneſs of the *alimentary* object, our *food:* or the *irregularity*, *inſufficiency* and *indiſpoſition* of the *faculties* or *digeſtions*; whereby their *tranſmutations* are *aliene* and depraved.

Having lightly touched the firſt part of the *aſſertion*, ſetting forth the *turbation* and diſorder of the blood *ab extraneo adjecto:* I come now to the latter; laying open the *dyſcraſies* of the *blood*, *ab interno principio exaltato.*

tato. And here we ſhall find matter of *argument* and *diſcourſe.* If you look back into this *Author's* own words, he expreſſeth the variations of the blood, by the different ſtate of the elements, one or other being exalted unduly above its *conſort.*

By *Elements* here he does not underſtand the *peripatetick quaternary*; *Earth, Air, Water,* and *Fire*; but his own five principles, *ſpirit, ſulphur, ſalt, water* and *earth,* as his following diſcourſe does manifeſt. And for the introduction and eſtabliſhing of theſe principles, he caſts out of our *Philoſophy forms* and *qualities*, and calls them *inania figmenta*; but how undeſervedly theſe are rejected, would require a long debate: only this; If it were ſo that *forms* were but *fictitious* uſeleſs terms, and no *reality* and *verity* in them; then theſe *axioms* of our famous predeceſſors and the whole *ſyſteme* of *Philoſophy* is unhinged: *Forma dat eſſe: Forma dat diſtinguí: Forma dat operari.* And if theſe be taken away, how ſhall Dr. *Willis* his five *principles* ſubſiſt apart; they muſt of neceſſity be confounded together, and become a *chaos*; except they

Dr. *Willis. lib. de fermentat. cap.* 1.

Axiomata Philoſophica.

they have their peculiar *forms* to *diverſify* them, and *ſeparate* them one from the other. But to wave the proſecution of this point, which otherwiſe would launch me into a vaſt *ocean*; I muſt keep within the banks of our preſent undertaking, and follow the current of this *Authors* diſcourſe upon the *ſubject* in hand; and reſerve the diſcuſſing and diſcarding of theſe five ſuppoſed principles to a fitter opportunity; when we ſhall come to conſtitute and ſettle another Phyſiology, differing from what hitherto hath been delivered.

He proceeds to ſhew the diverſity and *variations* of the *blood* in *Scorbutick* perſons, by *exaltations* and *depreſſions* of his five *elements*; by their peculiar and different *combinations* one with the other, and that *analogi-*
Pag. 207. *cally*: As in Wine, ſo likewiſe in the Blood; *parallelõs*: which ſhews an ingenious *contrivance*, but the *demonſtration* of its verity, *mihi nondum conſtat*.

To wave this *Similitude*, of which ſomething hath been ſaid; we will examine the *blood*, in its *variations*, and inquire into the reaſons of the ſame,

ſame, according to our own judgment. And here firſt you muſt underſtand, the *materia ex qua* of what blood is made; and that is either *remota* or *proxima*. The *remote* matter that contributes to the making of the *blood*, is mans food, *meat* and *drink*: This *food* is various and *heterogene*, of different *natures*; this *variety* depends upon the peculiar diſtinct *form* of each, differencing *ſpecifickly* one ſort of meat from another. Theſe various *ſpecific natures* enter the body of man to make up that *compoſition*. And although the *vita prima* of theſe ſeveral *ſpecificks* be refracted and changed, yet their *median natures* do ſhew themſelves and *teſtifye* that *formæ manent in mixto*; their Forms are not deſtroyed, but brought *ſub jugo* under the ſpecifick ruling *form* of man.

If ſo, as it is a moſt rational *philoſophy* and aſſerted by ſolid *writers*; then Man is compounded and made up of various creatures; ſince *vegetables*, *animals* of the Air, Land and Water, are his food; and theſe alſo are fed of divers other things, even ſuch as have *antipathy* and great contrariety with man, as *poiſons*; yet theſe

are devoured by thoſe *creatures* which afterwards are mans *food*: ſo that man deſerves the name of *Microcoſmus*, being a collection and *Epitome* of the *univerſe*: *Nam omnes ſpiritus hujus mundi, aſtrales, elementales, meteorici, metallici, minerales, vegetabiles, animales, ſunt incolæ corporis hujus animalis*, ſayes *Kozac*. From whence it was truly affirmed by the old Philoſophers ἓν εἶναι τὰ πολλὰ, καὶ τὰ πολλὰ ἕν, *Unum eſſe multa, & multa unum*.

Kozac de Sale, pag. 18.

Plato. Hippoc. Galen. Anaxagor.

From this doctrine we muſt draw theſe *obſervations* which are to the purpoſe in hand: If ſo many diſtinct *forms* and bodyes enter the *compoſition* of man, and this multitude be *ſubjugated* under his *ſpecifick form* which is *Anima*; then ſo long does man ſubſiſt in a quiet good *ſtate*, as he is able to tame and keep under in *ſubjection* to his being, this vaſt multitude of various *creatures* of which he is compoſed; and Being thus ſubdued and governed, there is a *harmony* and *concord* in this great *diverſity* and *concourſe* of different *creatures* (as it is in the *Microcoſm*:) but when *nature* declines, or errs in *government*; when the

the reins are more ſlack; when the *ſpecific Form* of man is not ſo powerful, or ſwerving from a due œconomy, by his lapſed nature; then the *ſubjugated forms*, thoſe *creatures*, one or other, ſtarts up and ſhews it ſelf in a *peculiar nature* and clothing, *ſaline*, *ſulphureous*, &c. which alſo do admit of ſubdiviſions and are of divers *natures*: And ſince it is true, that, *iis conſtamus quibus nutrimur*, we conſiſt of ſuch as we are fed and nouriſhed, and thoſe are divers; hence it is, as *Hippocrates* ſaith, there is in man, *bitter* and *ſweet*, and *ſalt* and *acid*, *auſtere*, *inſipid*, &c. hundreds more, which have proper and peculiar *forms*; yet by *contemperation*, and reſtraint under the *ſpecifick ruling Form* of the body, have a friendly ſociety, and we perceive no *diſturbance* by the *diverſity* of their *natures*: ὅταν δέ τι τούτεων ἀποχωρέῃ. *but when any of theſe are ſeparated* (ſaith he) *and ſtand in their intire nature; then a diſturbance ariſeth in the body.* That is when any of theſe peculiar forms are exalted and do exerciſe their own power and *ſpecifick vertue*, without *ſubjection* and *ſubmiſſion* to the *ſpecific form* of man; then we

Hippoc. περὶ ἀρχαίης ἰατρικῆς. Ibid.

we find the *peculiarity* of their *natures*, to be *diſſonant* and *diſturbing* to the regular *œconomy* and *government* of the body: but ſo long as they remain refracted *ſub jugo*, in ſervitude to the *ſpecific nature*, then the body is peaceable and quiet.

From whence are the various and ſtrange *productions* that have been found in mans body, as *ſtones*, *wood*, *mettals*, *worms* and other creatures; as credible Authors report, (and ſome of which we can teſtify:) but becauſe the *ſeminaries* of theſe things enter into mans body, which by *eluding* or *evading* our *digeſtions*, do grow up and ſhew their *ſpecific natures* and entire bodies. 'Tis ſtoryed of one *Katherine Geiler* who uſed to drink of a ſtanding water in a Medow neer her abode, (which was pregnant, with the ſeminaries of animals doubtleſs) that from the year 1647. to the year 1653. ſhe did vomit up hundreds of frogs, toads, lizards, &c. beſides bones and other things. *It ſeems ſtrange and wonderful* (ſayes Kozac) *that there ſhould grow in mans body gold, or ſilver, or iron, or copper, tin, lead, or wood; and yet ſometimes it hath been ſo, as Hiſtory makes mention.*

Bartholin. cent. 4. hiſt. anat.

Kozac. de Sale. ſect. xv.

I

I might give you particular accounts from very good *Authors* of the various *preternatural productions* that have been found in, or come out of man: Which proves that there is *various ſeminal principles* latent in mans body, of which he is made up; and that ſometimes do rebel againſt the government; do ſtand up and appear, in their own nature and likeneſs. If we do but conſider the variety of *tumors*, *phlegmons*, *cryſipela's*, *oedema's*, *ſcirrhus*, *aqueous tumors*; and the variety of *Ulcers* having peculiar *natures*, and *ſpecific differences*; we muſt allow them their peculiar *ſeminal principles*, as roots from whence they do ſpring. The blood is ſo variouſly *degenerating*, and liable to ſo many *impreſſions* and *alterations*, as is not to be ranked in order or number; theſe *innumerable changes*, muſt ariſe from peculiar *efficient cauſes*, which muſt be more in number then five *principles* or their *combinations* to father ſuch a vaſt *progeny*. *Borellus. Kercher. Severinus. Bartholin, &c.*

In the *retexture* and unravelling of bodies by *fermentation* in the ſtomack, ſo many various parts is there to be diſtributed as the *variety* of our food does

does consist of; and these *several parts* are to be prepared and fitted so, that they may be made apt to *associate* and joyn with the several parts of mans body, most agreeable to the *nature* of each: Now if the governing and ruling *Form* (*anima*) of man, does not rightly prepare alter and subdue in the *digestive offices*; does not *distribute* in due time the *utile*, and *sequester* the *excrementitious* drossy part; the regular *œconomy* is perverted and disordered, the body changeth and *degenerates* from its *regular* and *uniform state*; and by such *remissness*, the subordinate *forms* of *creatures* in mans body, have opportunity to stand upon their own right, and *exert* their own *power*; begin to exercise their own *proprieties*, and be disobedient to the natural *government* of the body; do then shew their own natures, not subordinately in *subjugation*, but *eminently* and *independently*, refusing subjection to humane nature.

The result of this discourse is thus much: That the the *various alterations* and changes in mans body ariseth ἐπὶ τὸ πολὺ, from *seminal principles* and different *forms* of *creatures*, resisting subjection,

jection, or looſed from their *ſubjugation* and ſervitude; from the occaſions and *opportunityes* aforeſaid; as alſo from the various deficiencies, aberrations and enormontic motions of the *Archæus* or Regent power in each faculty; not from *ſulphurs* and *ſalts*, &c. Dr. *Willis* his five principles.

I do not hereby totally reject the diſtinction of *ſaline*, *ſulphureous*, *ſpirituous*, *aqueous*, *terrene*, as uſeleſs terms; but I do not admit them as *principles* or parts *ultimò ſenſibiles*, into which all bodyes are reſolved. For, firſt, they cannot be *principles* becauſe they are not the ſame in all bodies; but *analogũs* have only ſome *reſemblance* and *proportion* one to the other: Secondly, they are not the *ultimate reſolution* of parts, but a *gradual retexture* and ſeparation, and by a *chymical analyſis* you may *ſubdivide* and reduce the number to leſs than five. Thirdly, they are in ſome bodyes *mutuo convertibilia & tranſmutabilia*, they change one with another, and one into another. And thereſore they are not a firm *baſis* to reſt upon and ſet down; or as the fartheſt ſtep a Philoſopher may take in the *unravelling* of mixt

bodyes:

bodyes: they may well be allowed as diſtinguiſhing *generical terms*, compriſing under them *various ſpecies*; for theſe *principles* ſo called, ſome of them may be *ſubdivided* into various kinds which have little or no *affinity*, except by their *generical title*, as a *foul* and a *fiſh* are both Animals.

But this parergõs; and, to return to our purpoſe: Bodies in *general* are ſometimes *ſaline*, ſometimes *ſulphureous*, at another time aqueous; ſometimes *ſpirituous* briſk and *volatile*, ſometimes more *terrene* groſs and *fixed*; as the active *principles* of nature ſtamp their *impreſſions* upon the matter of bodies, they are changed and appear ſometimes this, and ſometimes that: Now if matter be obedient and ſubject to the *impreſſions* of *active principles* which are moſt *predominant* at thoſe times, and will be *modified* and formed into various *ſhapes* and *figures*, as the ruling *principles* act their parts by *ſucceſſion* and turns; then *ſulphurs* and *ſalts* are but the *garments* and external *garb* of Nature which ſhe puts on and off, to ſhew the variety of her *habiliments* and *furniture*, accommodating and fitting her to act ſeveral

ral parts, which theſe *ſcenes* do preſent: And theſe appearances are but as the *cortex*, the outſide which is preſented to our *ſenſes*, but the *myſterious agents* are covered and act inviſibly. *In uno nucleo latet & vermis & arboris ſeminarium; ſed ad oculum non patet, in nucleo hujus vel illius ſeminarii centrum, vel centri diſcrepantia; ſed ex eadem ſenſibilis corporeitatis portione procedit arbor, ex qua vermis, vel vermis ex qua arbor.* ----- *Non ſaltem nucis, ſed omnium eſculentorum & potulentorum eadem eſt ratio.* *In one nut kernel* (ſays *Kozac.*) *there lyes hid the ſeminary of a worm and of a tree; but it does not appear to the eye the center or point where the one or other lyes; but from the ſame ſenſible part of that body, proceeds the tree, from which alſo the worm is generated, or the worm from which the tree.* Then a little after he concludes thus; *not only of a nut, but it is the ſame caſe in our meat and drink.* Kozac.

Hereby we may underſtand and *rationally* determine, that the *various changes* in the *blood* does not ariſe from the *exaltation* and *depreſſion*, or peculiar *aſſociations* of thoſe five *principles*

ciples assigned by this learned *Professor*; but from the *latent invisible forms* those active *principles*, emancipated from their *subjugation*; or not well subdued to the *specific humane* nature, but resisting, or revolting from that *government*, from various *procuring causes*, occasioning their *contumacy* or *disobedience* to subjection. When those *laboratory's* of our bodyes, the *digestive offices*, are weak or depraved, in their *transmutations* of those various bodies comprised in our food, and does not *refract* and *change* their *natures* sufficiently, and by a *coercive power* keep them under in servitude to human nature; they then *reassume* some *properties* of their peculiar natures, by the *principles* of *reduction* remaining in them, and *separate* from the *nature* and *service* of our bodies: *Hinc tribuli & spinæ*; these are the thorns in our flesh that molest and disturb us.

Our *food* being of divers *natures*, and comprising under their *specific differences*, subordinate *constituent forms* and *seminal principles*, will therefore admit of various *transmutations* not only *saline*, *sulphureous*, &c. those five and their different *associations*; but hundreds

hundreds of *alterations* it is capable of, and lyable to, in the body of man, not *reducible* under thoſe heads, except you allow each of them a *generical latitude*, and a large *analogical extent*; for *ſalts*, *ſulphurs*, *ſpirits*, are as various as the things from which they are ſeparated; and are the *exterior garb*, and clothing of nature in which ſhe appears, alters and varies, as the *ſeminal* and vital *principles* act their parts; or art operates upon them: So that the different *ſtate* of the blood in *Scorbutick* perſons, *ſpirituous*, *ſulphureous*, *ſaline*, &c. ſo admitted in the latitude aforeſaid, and not elſe; are not the *exaltations* and *depreſſions* or *combinations* of ſtanding *principles*, and the actors in thoſe various ſcenes; (as the aforeſaid Author would have it) but are the *products* and *effects* of various *efficient cauſes*, characteriſed upon tranſmutable *pantomorphean* matter; are ſignal and conſequentional, as products; not the cauſes of ſuch *ſcorbutick* alterations. D. *W.*

AND here by the way, I must take notice, of the *censure* some have formerly passed upon me, for *questioning* the writings of this last *Author* named; as if it were an *indign* action to tax him with *error*, whose works had gained so general applause and acceptance; as if they were not to be *out-done*, or rationally to be *gain-said* by any; but give me leave to tell you; I am not bound to *venerate* or *stoop* to any mans opinions, farther than I am *convinced* of the truth thereof, which only obligeth me to *consent* and *approve*; otherwise I am *free*; and it may well become me to *contradict* the greatest reputed *Authority* in learning. Are you so ignorant, and must I tell you? that every *Doctor* in this Faculty hath *Authority* and a warrantable right to *assert* what and *contradict* whom he pleaseth; either in *Philosophy* or *Physick*; but if he do this without strong *reason* and good *argument*; he then proclaims his own imbecillity, and exposeth himself to be meanly esteem-

ed

ed by judicious men; and that is *caſtigation* enough for his folly and bold attempt: ſo that none is to be cenſured, for controverting with any man; otherwiſe, than for what his labours ſhall *merit* or *demerit*. Hereafter then, look off the *perſons*; and cenſure not upon a ſuppoſed *inequality* and a *prejudicate* opinion of their worth and learning; but examine well the *matter* and *arguments* of the diſcourſes, as nicely and ſtrictly as you can; make a juſt *collation*, then ſay on; tell what you can find there to my *prejudice*, and the *advantage* of him you favour.

Hippocrates and *Galen* were men of greater fame, and more aſſerted than any I hear of now alive exerciſing this Profeſſion; and yet it is not accounted *abſurd* to *decline* from, or *contradict* either of them. You that are ſo *critical* to diſtinguiſh perſons, and place them according to their different value and worth in your *fancy*: pray tell me what priviledge or right hath this *Profeſſor* to make his works *authentic* and *unqueſtionable*; more than another *equally* graduated in the ſame faculty; our education was alike,

in the moſt famous Nurſeries of literature, and we equally have obtained the ſame degrees; he my *Senior* in Age, I his in degree; ſo that the great difference between us, is in point of opinions, and not otherwiſe, that I know; well then; to level the *inequality*, the only way I can propoſe is; that this Profeſſor would maintain his *Poſitions*, and clear them from the *entanglements* of my *objections*; and he ſhall find none more yielding to the power of *reaſon* and good *Argument* than my ſelf, if he can ſo *convince* me, until then I muſt continue *heterodox* from this *Author*, and reſt well ſatisfied in my judgment now delivered, and as followeth hereafter. *Dead* mens works (I confeſs) are to be handled with as much *candor* and *favour* as poſſibly they may, yet not to *ſmother* the truth; but when the *Author* is *alive* to vindicate and defend his writings, and *nothing* offered unhandſomly, but a *fair Argument*, and an invitation to controverſy; none reaſonably can take *exceptions* at this.

He that *excogitates* and frames any *new* doctrine, and expoſeth it to publick

lick view; gives a challenge (*implicitly*) for the whole World to oppoſe him: and that *Author* is obliged in point of *honour* and *credit* to defend thoſe *tenents*, againſt any *opponent* that ſhall take him up, by a *rational* and *ſober* argumentation: but if he *declines* the controverſy, and will not ſtand by his works to *defend* them, when he hath a *fair Antagoniſt* to deal with; it argues that cauſe not *tenable*, and the *Author* to be more *forward* and *daring* in aſſertion, then *generous* and *able* in maintaining.

'Tis well known this Authors *writings* have been ſucceſsful in the World, in point of *profit*: ſuch good events *fames* the *undertaker*, begets *applauſe*, and ſtamps a *venerable* impreſſion upon thoſe works, in the opinion of the World, and *captivates* many good judgments: but notwithſtanding all this; I cannot ſay they have been ſo very *fortunate* in the exploration and diſcoveries of *truth*; but they have deviated much from *ſound* doctrine in *Phyloſophy* and *Phyſick*. I know they are well ſet forth in a good *garb* and *dreſs*: ſpecious enough to perſwade and induce a belief: but

dive well into the *matter*, and fathom that exactly, if you be a *ſceptical*, *critical*, and *experimental* Philoſopher; you will not find them to contain all thoſe *verities*, which in appearance they promiſe; but *unwary* heads, and the *credulous vulgar*, whoſe ears are always open to common *fame*; thinks every thing to be of unqueſtionable *worth*, and indubitable *verity*, that makes a great *noiſe*, and is cryed up by the *fortunate* beaſts, of *popular ouge's*. Thus the people impoſe upon one another; and after this manner, *error* thrives and grows ſo *big*; that to oppoſe it, is accounted an *abſurd audacity*; and to attempt the *diſcovery* is an undertaking that begets *ſcorn* and *contempt*, rather than a friendly incouragement with a ſort of men, thus *prepoſſeſſed* and *prejudicate* by common *vogue*: others though more knowing and *literate*, that reverence the learned Tongues; are captivated in their judgments, by the *texture* of *letters*, and draw their concluſions thus: 'tis good *latin*; the diſcourſe is much of a Scholar; *ergo* 'tis good *Philoſophy*, and good *Phyſick*: but I ſay that is no good *Logick*, but a fallacious

fallacious *argument*, and an imperfect *syllogism*. I estimate and measure every man by the *substance* of his works, not his *words*; by the *matter*, not the *letter* or *text*: good *latine* shall not so præoccupate and seduce my judgment, but I can discern whether there be good *Physick*, as well as good *Language*; whether sound *Philosophy* as well as good *Grammar*.

But this perhaps you may say, amounts to, or is something like a *detraction*, not a fair *confutation*: I should be loth to be guilty of such a crime; to diminish ought from the true worth and merit of any *Professor* in this faculty: but in this case I am to be excused; when the *repute* of *men* and *truth* of *things* stand in Competition, whether should prevail and have the preheminence: I think it every mans *duty* then, and a laudable action to assert the *truth*, vindicate and purge a science from *error* and *false doctrine*, although it does depreciate a particular person in his supposed *value*, and lessen him in his acquired *fame*. And to let the World know, I have said nothing *malevolently* or *rashly*, more than what I shall stand to and make

out, fairly and candidly, by *argument* and plain *demonſtration*; if this *Philoſopher* will defend and maintain his *Hypotheſes* againſt the *objections* that ſhall be offered and urged home upon him: I ſhall then willingly apply my ſelf, to *controvert* with, and ſhew my *diſent* from this *Author*, farther then what is contained in this *Tract*; and ſhall endeavour to detect by a plain diſcovery; (and I think it no hard taſk) that the *baſis* which this *Author* hath laid, and on which *all* his *works* are founded and built upon, is but a *phantaſm* in *Philoſophy*, and have *no real being in ſtatu compoſito naturali*; meaning the five *principles* before-named; which cannot ſtand a ſevere tryal, but will vaniſh when diſcuſſing *reaſon*, and good *argument* appears againſt them. Secondly, In carrying on his doctrine of *Fermentation*; great *errors* are interſperſed here and there, which I ſhall point out and evict. Thirdly, In his Book of *ſcavers*, that great *deluſion* and miſtake of a *ſuppoſed ſulphureous deflagration* of the blood, in *fibril* æſtuations and preternatural *ardor* of the whole body, is very *irrational*; and the *curative* Practice

ctice grounded upon that doctrine is very *mortal:* beſides ſome other *conſiderable errors* to be noted there. Fourthly, The Pharmateutick *apparatus*, that this Doctor hath collected from Authors, and recommended againſt the *Scurvy*, in his Treatiſe of that diſeaſe, being almoſt a hundred Medicines, *Syrups*, *Electuaryes*, *Powders*, *Pills*, *Decoctions*, *Dyet drinks*, *Confections*, *Tablets*, &c. (enough to furniſh an Apothecaries Shop) are ſome of them *injurious*, and not to be uſed in the caſes appointed; moſt of them *Trivial* and *inarteficial*, (examined and adjudged by the modern beſt rules of Pharmacy) and not becoming a *Profeſſor* of ſo great a name to aſſert and appoint in this *Sagacious* inquiſitive age; wherein Medicines are refined (by the accurate ingenious labours of ſome *Pharmacopœian Doctors*) and improved far beyond thoſe *traditional Antiquated* models.

In all theſe exceptions; if I cavil *frivolouſly*, and not *materially*, from ſufficient juſt grounds; if I contend not with *valid* reaſon, good *argument* or *demonſtration* by fact; then let my *Antagoniſt* take the advantage, and expoſe

pose me; let him spare me not.

For the future, I hope none will be so *absurdly* unreasonable, as to expect I should be over-awed and restrained by any mans *fame*, reputed *Authority*, or seeming *oracular* discourses; so as to stop my *disquisition* and *inquiry* into the verity of what is published for sound doctrine in the *Science* I profess; but rather hope for (as justly and my due) *instigation* and *encouragement* from the *learned*, and most *judicious* party; to explore and question any *positions* or *tenents* (be the Author whomsoever) of the *past* or *present* age; and so I dismiss this *Parergie*.

CHAP. VIII.

What the Scurvy *is; the essential constitutive Causes; Manner of Generation, and Parts affected.*

IN the Preceding Chapter having given you the *Definitions*, or Concise determinations of the best Foreign Writers

Writers upon this subject; as also the judgment of a learned Professor of our own Nation. it remains now I should declare my own sense of this matter, being differently biassed, and otherwise perswaded, from my observations in practice upon this disease.

And first, Negatively.

1. It is not one *univocal* homogeneous preternatural Humour, the *materia ex qua*, that generates the *Scurvey*; for as the Symptoms and concomitant Effects are various, so is their *material cause* different and various.

2. It is not *melancholy* degenerate and depraved, acquiring a specifick malignity (as most *Physitians* I meet with in Print do affirm) that is the material cause of the *Scurvy*: for

A signis diagnosticis.

Admit there were such a *melancholy humour* depraved and specifickly malign; this specification would determine it to some certainty, and confine it to some distinct *diagnostick signs*, indubitably declaring its peculiarity and separation from others; for there must be some specifick distinguishing *character* which necessarily must accompany such a *specifick malignity*; but there

there is none ſuch: for a man is adjudged to be *Scorbutick*, with looſneſs of Teeth and without; with ſpots or without ſpots; and ſo likewiſe of the other ſigns, in their abſence and preſence: and the *ſymptoms* are ſo various, that they contradict and oppugn one another in their declarative ſigns; ſhewing that they own diſtinct cauſes, not one *peculiar malignity*. Farthermore, The diverſity or difference of the *ſcorbutick ſpots* do argue variation of the material cauſe, and not one *ſpecifick* malign humour: For, if you judge of *temperaments* by colours, making them one ſort of diſtinguiſhing *Characters*, (as you do) ſaying; This perſon is *Phlegmatick*, becauſe pale; and that *Sanguine*, becauſe roſy; and This *Cholerick*, of paliſh yellow: as alſo of preternatural tumors, ſaying this is a *Phlegmone*, that *Eryſipilas*, or *Oedema*, *&c.* from the variation of their colours and external appearance, aſſigning ſeveral *humours* for cauſes; then why not various *commaculations* and *diſcolorations* in parts, as well as various *extuberations*, ſhould challenge divers material cauſes, ſince they differ but *ratione quantitatis*, in the quantity

tity of peccant matter, the one hath more, the other leſs; and ſometimes theſe ſpots do germinate and ſwell into Scorbutick tumors *ex abundanti materia*, from encreaſe of the ſame *depraved matter*, and have their variations and *denominations* as other præternatural *tumors*: and from hence various Scorbutick Ulcers do break out.

A juvantibus & contra.

2. If a *melancholy humour* be the foundation of this Diſeaſe, then *Purgatives* that attract *Melancholy* (as you ſuppoſe) would prevent this diſeaſe, or *eradicate* it; but you may *purge* and *purge*, Spring and Fall, with your vainly ſuppoſed *Melanagoga*; and yet the *Scurvy* ſhall come on and prevail: but if it be *Melancholy* degenerate and malign, as you ſay, then *Sudorificks* would be the grand oppoſers of this Diſeaſe; but neither *Purgatives* nor *Sudorificks* alone, are the adequate Medicines of this Diſeaſe; yet both uſeful *a poſteriori*, applyed to the *Effects* and *Products* of it: but that which unhingeth this *Diſeaſe*, ſtops the ſpring, prevents or eradicates it; *roborates* and *rectifies* the *faculties* intentionally and primarily, reſtores them to integrity and priſtine vigour

vigour in the performance of their *functions* and duties.

A Causis antecedentibus externis.

3. Certain *Climates*, *Regions*, and bad *Airs*, are procuring and promoting Causes of this disease; not that we can imagine they ingender *Melancholy* more than other places, but because they are infested with noxious *exhalations* and *vapours*, which surrounding and being drawn into the body, commix with the Spirits, and do *labefactare vitæ principia*, debilitate and deprave the *faculties* in their operations, from whence *Scorbutick effects* do ensue.

But you may say, A sedentary, studious and *melancholy* life doth often breed the *Scurvy*, and therefore it must needs be a *melancholy humour* the material cause and foundation of this disease. To which I answer; That a melancholy inactive life doth breed the *Scurvy*, but how? Not to conclude from thence that it is a *melancholy humour* degenerate and malign; but because by such a condition of life, the faculties do receive much prejudice, decay, and fall off from their functions; for mirth and an active life do roborate all the *Faculties* and keeps them *Vigorous*,

rous, the *Spirits* being chearful and lively in the performance of their duties; but by the contrary, are *languid*, debile and insufficient, from whence many inconveniences and prejudices to the body do ensue.

But you may farther say, The Spleen being the seat of that passion, is chiefly affected and injured thereby, and therefore it must need a be *splenetick* luxuriant humour.

That a *Melancholy* Life doth debilitate and frustrate the *Spleen* in the rectitude of its office, I agree; and not the *Spleen* only, but other *principal parts* and offices of digestion also: for, if *Melancholy* seize and fix the *Spirits*, to make them *torpid*, dull and heavy, (as it is the property of it so to do) and these spirits are the *principal agents* in all the *faculties* (as generally affirm'd) then not the *Spleen* only is prejudiced, and a *splenetick* humour only that abounds, but all parts do participate of the injury *idiopathically*; and all the *digestions* are vitiated thereby, and their ill effects do appear *scorbutical*, and variously complicated, as their several actions and offices are various.

Having

Having ſhewed you negatively, and determined that the *Scurvy* is not what ſome have ſuppoſed it to be; I ſhall now poſitively ſet down what it is, in theſe following *Theorems.*

1. That the *Scurvy* is generated by the conjunction or *conſpiration* of divers cauſes; yet ſo disjunct in their cauſation, as ſubordinately and diſtinctly contributing to a *Scorbutick diſformity:* For, although the deficiency of the firſt *digeſtion* lay the foundation ſometimes; yet it is not compleated ſo as to challenge the full *denomination* of the *Scurvy*, until by addition from the irregularity and depravedneſs of other parts.

2. That the *Scurvy* is a complication or *concatenation* of *diſeaſes*, conſpiring to the making up of its *deformity* and *Protean* ſhapes; not ariſing from a ſingle or ſolitary cauſe: For, as the variety of *ſymptoms* and *products* do appear in ſeveral parts, diſſimilar and unlike, being the effects of ſeveral inordinate *faculties*; ſo they muſt of neceſſity challenge and own diſtinct *immediate cauſes*, as the parts wherein thoſe *faculties* do reſide, are diſtinct and ſeparate in place and office.

3. That

3. That the *difformity* of the *Scurvy*, in the diversity and dissimilarity of *symptoms*, ariseth from the *complication* of errors in the *digestions*, and variety of parts thereby affected, and drawn into consent.

4. That the *individual variegation* of the *Scurvy* ariseth from the peculiar association of causes, and *idiosyncratical* propriety of particular persons, producing such and such *symptoms*, which in no other person you will exactly find the like: For, as found bodies in respect of *sanity*, having a *parallel* equality and proportion in the whole; yet particularly and *disjunctively collated*, there is great variety and difference; in *stature*, *organization*, *complexion*, *inclinations*, *appetitions*, performance of *functions*, *&c.* If there be such variety of parts, properties, and operations in humane bodies in a state of *sanity* and integrity, which is *uniform*: Then much more variety and disproportion in a state of declension and irregularity, which is *deform* and *multiform*.

5. That the *Scurvy* is generated *formaliter & essentialiter*, in the vital and

fundamental principles *ut ens invisibile*, not discerned by sense: But the effects and products are distributed, have their residence in all the parts, and are sensitive objects; as spots, pains, looseness of *Teeth*, putrid Gums, Tumors, Ulcers, *&c.*

6. That the *Scurvy* is planted *seminaliter & radicaliter*, in the digestions or digestive offices, whose *ramifications*, spread throughout the body, and are encreased *extensivè* more or less, according to the fortitude and debility of parts, to resist, or consent and be depraved.

7. That the *Scurvy* encreaseth, or is worse *intensivè*, from the greater frustration of *digestions* and degeneration of the digestive matter, *ex causis antecedentibus quibuscunque.*

8. That the *Scurvy* is procured *occasionaliter & primitivè*, by numerous and various *diætetick causes*, seducing the faculties to declension and deviation from their rectitude and integrity.

9. That the *ratio formalis*, quiddity, and essence of the *Scurvy*, is, defection and *enormity* of the vital and fundamental *principles*; variously occasioned and procured.

10. That

10. That the *Scurvy* ariſeth *ab intro*, from hereditary propagation *in ſemine*, connatural with our *conſtitutive principles*: As alſo by degeneration and defection of the *vital principles*, ſpontaneouſly declining through their natural inability longer to perſevere, and fragility of *radication*, and conjunction with each other: or is acquired and procured, *ab extra*, by contagion; receiving contamination by *carnal coition*, *lactation*, familiar *contact*, *&c.* from ſcorbutick perſons.

11. That the *Scurvy* is not reſtrained to any certain *ſymptoms* either in quantity or quality, or *univocal material cauſe*; but is various and *equivocal*, as to the material products, by degeneration and complication; as alſo unlimited in the *ſymptoms*.

12. That the parts frequently affected *primo & principaliter*, primarily and chiefly contributing to the *pravity* of this *diſeaſe*, is the *Stomack* and *Spleen*; for that theſe two parts are principal members, the firſt in *chylification*; the other for *depuration* and *preſervation* of the blood. The diſcharge of which offices in integrity and perfection, primarily maintains

our health and *vigour*; but by their deficiency and depravation, *ut plurimum* lay the ground work of this disease; the alimentary *succus*, and vital stream, from thence being impure and degenerate.

13. That *Scorbute*-spots arise from impediment, vitiation, or extinction of the last digestion or assimilation; and that *ratione objecti deturpati*; *vel facultatis transmutativæ deficientis*: Either the alimentary object is depraved and unfit; or the *assimilating faculty* is languid, deficient, or extinct.

14. That *Spots* appear chiefly upon the *Thighs* and *Legs*, not from the gravity of their *material cause* and ponderous propension of grosser matter downwards, (as is commonly alledged for the reason;) but because ignoble parts are more weak and debil in their *assimilation*, being more remote from assistance and supply of *vital spirits*, have first the tokens of defection. And further; not the lower parts only are so affected, but the superior parts, frequently, as *Arms* and *Shoulders*, from the same cause, do bear the same *characters*, not distinguishable

guishable by *tenuity* and grosness of humour.

15. That *scorbutick pains* are caused from alien qualities, arising out of the degenerate matter in the *parts* so molested; or from *stomachical acidity* transmitted unsubdued; from defect or debility of the second digestion; or its own *luxuriant exorbitancy*, resisting *transmutation* and obedience in its passage.

16. That *pro ratione corporis perspirabilitatis, plus minusve, scorbutus variatur*: As the body is perspirable or impervious, more or less; is the *scurvy* varied, intended, and remitted, in some of the symptoms: And therefore the *Crassities*, impenetration of the skin, and constipation of the pores, prohibiting transpiration, is a partial organical cause of preternatural spots, and makes for their continuance and duration: For, as the body in its natural good state is transpirable, giving free emission to what is superfluous, remaining after the last digestion: On the contrary, the restraint thereof by congestion, begets commaculations and defædations of the skin, tumors and

apoſtumations, one or other, *pro magnitudine cauſarum.*

17. That although the *Scurvy*, *eo nomine*, is not of long *ſtanding*, and unknown to the ancient *Phyſicians* under that title, and all the diſtinguiſhing *characters* that we denote it by; yet the diſeaſe *in ſpecie* is antique, though *in individuis* not ſo frequently then, nor *ſpecifically characteriſed* altogether alike, as we now diſtinguiſh it: For, as humane bodies do decline in theſe *latter dayes*, and degenerate from the *priſtine vigour* of the Ancients in all the *faculties* and abilities of body, by reaſon of *intemperance*, and various manners of *abuſive living*, tranſmitted *in ſemine* from generation to generation; ſo likewiſe, and for *theſe cauſes*, diſeaſes do not continue alike and certain in their *ſignatures*, but have their *variations*, and *complications* different, which occaſions new *names*, though the diſeaſe be the ſame in its *eſſential conſtitutive cauſes* and manner of generation.

CHAP.

CHAP. IX.

Diætetick Rules to be observed, as Preservatives from the Scurvy, *and to be regarded in the cure thereof.*

IN the due *Regiment* of Health, and protection from Diseases; you must know that all things which belong, and are necessary for the *preservation* of the Body and support of *Nature*; that they also may be the *procuring causes* of sickness; as also the *fomenting* and *aggravating causes* of diseases already generated: As when, contrary to the *law* or disposition of our peculiar natures, they are applyed or used unseasonably, immoderately, incongruously, or any wayes unsuitably to our *nature* and condition of *body*: And therefore, both in the time of *Preservation*, and Curation of the *Scurvy*, they are to be regarded.

Air to be observed.

And since there is not a *moment* of time in which we do not stand in need of *air*; and that, being constantly drawn into the *body*, must needs make for, or against the continuance of *health*, according to the *conditions* and *properties* it is *pregnant* with: Wherefore in preservation from the *Scurvy*, it is of no small concernment the air and *climate* that you live in, to dispose you to it, or defend you from it: The nature of the air is such in some places, that few there are not tainted with it, and this as a *principal cause*. And therefore in *Holland*, *Denmark*, *Sweden*, *Norway*, and such places, this disease is most common; and chiefly in the *Fenny* and *Marish* parts, and *Sea-coasts*: For that, a moist foggy cold air is apt to engender this disease, or encrease it; because the *spirits* thereby are clogged and fixed, dull and *inactive*; from whence *defects* in fermentation, humours incrassated and obstructions, the *pores occluded*, and *transpiration* prohibited. But a warm, dry, serene air, makes much in the preservation from the *Scurvy*; As also in the cure: the *spirits* thereby are kept more *vigorous*, lively,

lively, and brisk; the *humours* attenuated, volatile and freely *circulating*; the *pores* more open and *perspirable*, giving emission to excrementitious *vapours* unprofitable and hurtful to be restrained; and all the parts more free in their *communications* and subserviency one to the other.

Those that retire themselves voluntarily to a studious *sedentary life*; or are confined to a *close chamber-air*, are thereby disposed to this *disease*; or much aggravated and encreased, if already they are *scorbutick*; more especially if *melancholly* be their companion: And where the *Air* is impure, not to be avoided, as in great *Cities*; correct it something by *Art* in your houses, with wholesome *fumes*, especially in moist cold weather. They that live in *Cities*, especially some parts thereof, more close and noisome than others; as in narrow streets, lanes, and allies, are much prejudiced in their health, and inclined to this disease. There is great difference in the place and parts of a *City* to live in; the broader streets and places more open and *airy*, the wholsomer: And the outside (*cæteris paribus*) near the

the *fresh fields* is better than to be crouded in the middle, provided no stinking ditches or dunghills be adjacent.

Diet to be regarded. The next considerable in a regular preservation from the *Scurvy*, is *Dyet*; which ought to be duly observed: for, as by convenient *food*, suitable and agreeable in all the requisite circumstances, *quantity*, *quality*, *time* and *order*: So on the contrary, by a disproportionate and *unsuitable dyet*, the *faculties* are disordered and debilitated in their several *functions*, enclining to this or that *disease*, according to the nature and quality of the *food*, and other *circumstances* that attend it. And therefore some kind of *meats* and *drinks* do dispose, and are the antecedent *causes* of this *disease*; as also do cherish and help to maintain it where it is already generated, though *procured* first by other *causes*.

The *grosser meats*, and such as do not easily *digest*, are to be avoided; but light *meats* and such as the *stomack* doth well agree with, covet, and *digest best*; keep to such.

Meats in respect of *facility* and *difficulty*

ficulty in *digeſtion*, are termed Heavy and Light: *Heavy meats* be ſuch as are more *dry*, *hard*, *ſolid* and *denſe*, *coarſe* and *tough*; or over *moiſt*, *ſlimy* and *cold*: Theſe requiring a longer time, and more *acuteneſs* of *ſtomachical ferment*, for their *volatiſation* and *digeſtion*, before they be fit to paſs off the *ſtomack*. And they are either ſo in their *own nature*; as all *old fleſh*; *Bull Beef*, *Oxe*, *Brawn*, *Pork*, *Veniſon*, *Hare*, *Gooſe*, *Duck*, *Swan*, *Crane*, *Bittor*, *Heron*, and moſt *Water Fowl*: *Ling*, *Cod*, *Haberdine*, *Stock-fiſh*, and ſuch like: *Beans* and *Peaſe* when they be ſomething old; brown bread, *Barly*, and *Rye-bread*: Alſo ſome parts are heavier of *digeſtion* than other; as brains, hearts, livers (except of ſome tame fowl, birds, and ſome very young fleſh) milts, kidnyes, ſkin.

Meats made heavy, or made worſe than in their *own nature*, by preparation, keeping, and dreſſing; as *dryed*, *fryed* and *broiled* meats; meats *long ſalted*, or long kept until they begin to *decay*: bacon, hang'd *beef*, or long powdered; *old ling*, *ſalt cod*, *haberdine*, *pickled herrings*, *red herrings*,

rings, *pickled ſcallops*, *ſturgian*, *ſalt ſalmon*, *hard cheeſe*, *hard eggs*, *toſted cheeſe*, *toſted bread* eſpecially if it be *ſcorched*; cruſts, *pye-cruſt*, *bread unleavened*, not well baked; meats over baked hard and dry; long kept, roſted *dry* or *ſcorched*.

Light meats and of quicker digeſtion, be ſuch as are more *ſoft* and *tender*, *rare* as it is oppoſed to *denſity*, therefore ſooner penetrated by the *ſtomachical ferment*; *ſuculent*, *volatil*, ſoon fermenting and yielding to *digeſtion*: As young tender fleſh; of *Mutton*, *Veal*, *Lamb*, *Kid*, *Pullet*, *Capon*, *Chicken*, *Turky*, *Conys*, *Pheſant*, *Partridge*, *Plover*, *Woodcock*, *Heath-cock*, and *ſmall birds*: *Whiting*, *Smelt*, *Oyſter*, *Flounder*, *Soles*, *Plaiſe*, *Thornbacke*, *Turbut*; *Trout*, *Carp*, *Pike*, *Bream*, *Perch* and ſuch like; *Rare Eggs*, *Milk*, and *Milkmeats*: But Milk, and Milkmeats; in a foul ſtomack do ſoon alter and degenerate, and therefore injurious to many Scorbutick perſons; but in clean bodies 'tis good food; eſpecially ſuch as are of a hot and dry body.

Broom buds, *Capers*, and *Sampire* are good ſauce to your meat, helps the

Stomack

stomack in digestion, and is profitable for the *spleen*; a part sometimes chiefly affected in the *Scurvy*. Also *Oranges* and *Lemmons*, *Barberries*, and *Sorrel* help stomachical fermentation, and are good.

For *quantity*; remember that you eat not to *repletion*, but to a moderate *satisfaction*; such a quantity as is proportionable to every ones *stomack*; that the whole body may be *refreshed* thereby, not *loaded* and *clogged*, but for rules in *dyet* more at large; I referr the Reader to another tract of mine, wherein all the *Dietetick laws* of nature, conducing to *health* and *long life*, are plainly and fully discovered. *Vita sana & longa.*

For *Drinks*, take these Observations: Drink not your *Beer* new, because not yet fully purified by fermentation and clear; but rather stale and mellow, not sharp: And reasonable strong, if your *stomack* be weak and declining. And it is very considerable, of what *Water* your *Drink* is made; for that there is great variety and difference in the goodness of *Waters*, being *impregnated* with several *qualities* from the nature of *Earth* through which it passeth; and *Drinks to be noted.*

several

ſeveral accidents that happen to *change Water* from its genuine *properties*, and make it impure and unwholſome, by carrion, filth, and ſuch like admixtures that may corrupt it. And from theſe cauſes *many places* are more diſpoſed to breed the *Scurvy* than others, from bad Water with which their Beer or Ale is made, and Meats dreſſed. And *Pliny* relates, that *Cæſar's* Army by drinking of bad Water but a few days, had the ſymptoms of the Scurvy. You need not wonder then (for this cauſe only) that the Scurvy ſhould ſo much abound in *London* ſince the drink is brewed of no better nor wholſomer water, than what the *Thames*, and the New-River affords; both too liable, to be impure and muddy, by carrion and filth, from whence a wholſome drink cannot be made. But it may be objected to what I now urge; that in the *brewing* and *working* of the *drink* this impurity and taint of the water is ſeparated and caſt out: I anſwer, that the *boyling* of this water, does mitigate *à tanto* and correct in *part*, that it is not ſo injurious as before, where crude and raw: yet here is not

a per-

a *perfect depuration*; and although in the *fermenting* and working of the drink; much of this impurity is separated with the Yest or Barm; but this returns upon you again, and you have it from the *Baker* in your *Bread*: so that you must suffer in the effects of bad water.

White *Wine* and *Rhenish* is good for you to drink a glass or two sometimes, to open obstructions, cleanse and whet the appetite, and promote fermentation. *Sider* also is good drink, if it be made of the best *Apples*; as *Pippins*, *Pearmains*, and such like; and that it be clear, having had good time to *ferment*, *separate*, and *purifie*: But withal have respect to your *stomack*, that it be agreeable, and desired by it: for if you have a cold, or raw *stomack*, a warmer liquor then will be more acceptable; as a glass of *Canary* sometimes, to fortifie the stomack and help digestion, is most agreeable to such persons: But Ale I do not approve of; such as commonly we have in *London*, and the Southern parts of *England*; high coloured, thick and muddy: But such *Ale* as is frequent in *Darbishire*, and the *Northern*

parts

parts being clear, citrine, thin, and well boyled, is wholsome *drink*.

A great fault of our *Ale* here, is the not *boyling* of it sufficiently: and that is one reason, it will not keep long, but soon turns *sharp* and *sour*: this drink is apt also to change and be acid in the *body*, except where there is strong and sound *digestions*, in bodyes of a healthfull and vigorous nature; but in *valetudinary* states, and *weak* bodyes, it must needs cause great detriment, introducing or aggravating *scorbutic* effects.

Exercise to be used. The next considerable for precaution of the *Scurvy*, is *Exercise* and *motion*. Which duly and moderately used is a good preservative from this *disease*: A sedentary slothful life makes the body to degenerate from its purity and vigour. *Corrumpunt otia corpus*. From hence *Defects* in *fermentation*, humours incrassate and obstruct; the *Spirits* being torpid, dull and inactive; do not rarify and *circulate the blood*, as when by motion they are excited and stirred up to their duties and performances: by *seasonable exercise* the digestions are strengthened, *obstructions* opened, and *evacuations*

tions more duly performed: and ſince an *idle Life* doth procure and promote this *Diſeaſe*, you muſt account it as your enemy, to avoid it.

And like to this is the *indulging* of *ſleep* unſeaſonably, beyond its *limits* and due times, from whence neceſſary *evacuations* are reſtrained and put by their due accuſtomed times; and *ſuperfluous humours* accumulated and lodged, that otherwiſe Nature would have ſent forth profitably in good time; the *ſpirits* are made ſluggiſh, dull and inactive, and all the *faculties* injured. *Sleep.*

But on the contrary, let not *watching* exceed its juſt times appointed by *Nature*, for from hence the inconveniencies are as great; eſpecially to ſuch *bodyes* as are *lean* and *ſpare*, or inclining to be *conſumptive* and *hectical*; by overwatching, the *ſpirits* are heated and tyred, the *blood degenerates* and turns acrid or ſharp, leaving its *balſamick* nature, and is diſpoſed to a *colliquation* or ſeparation of parts; the *vigour* of *nature* is hereby abated, and the *functions* depraved. *Watching.*

Paſſions of *mind*, though in the laſt place accounted; are not the leaſt, but

principally to be regarded, and due order to be kept there for *preservation* from *infirmities:* For the *soul* being the better and more noble part, from whose command and power bodily *actions* do proceed; of necessity if that be discomposed and disordered, the *instrumental* part must act irregularly and depravedly: The *distempers* and alienations of the *soul* from her genuine state of *serenity* and *quietude*, is of great disadvantage to *health*; impressing upon the body various *preternatural effects*, forming the *idea's* and *characters* of diseases upon the *spirits*, and by them communicated, conveighed, and propagated in the body: Likewise the *morbifick seeds* and secret *characters* of *diseases*, which lay dead and inactive; are by this *œconomical* disturbance and *perturbation* of *mind*, awakned, moved, and stirred up to *hostility* and action; which otherwise would have layen *dormant:* As by grief, fear or anger; *hysterical passions*, *swoonings*, *epilepsies*, &c. are often procured: And it is evident, and commonly observed by infirm and diseased people, how *passion* aggravates and heightens their *distempers*;

diſtempers; and, according to the temper of their *minds*, will their *bodily infirmities* be aggravated or abated.

And of all the *Paſſions*, habitual *Melancholy* and *ſadneſs* do moſt diſpoſe to this *Diſeaſe*, and aggravate it; the reaſons are theſe:

The *Soul* in that *Paſſion* ſuſpends and withdraws her *influence* and *emanative vertue*, which was wont to be enlarged and let forth into all the *faculties*, mediately by the *ſpirits*, her chief and approximate *Agents*; and the *Soul* in this ſtate and condition of *ſadneſs*, being as it were lock'd up and ſtraitned within her ſelf, darkned and overſpread with a cloud of melancholy, does not *emittere & emanare*, ſend forth her wonted quickning *power*; by which *ſuſpenſions* the *Spirits* are diſpoſed to *ceſſation* from their duties, whereby the *faculties* are enervated and deficient in their *functions*.

The *Spleen* which is accounted the ſeat of this *Paſſion*, is greatly debilitated and impedited in its *office*; the ſtomack alſo which is the grand laboratory for the preparation of our

nutriment, is checkt in appetition, and abated in digestion: the *spirits* hereby are fixed and deaded, *fermentation* allayed and restrained, from whence *Scorbutick Effects* do ensue; for by the benefit of due *fermentation* our food is altered and changed: that which before was crude and fixed; hereby, is decocted, retexed and transmuted into a prævious proper state of *volatility*, that it may be fit for *nutrition* and *assimilation* into the substance of the body: But if *fermentation* be deficient and wanting, neither *chylification* nor *sanguification* can be good, but altogether depraved and vitiated.

CHAP.

CHAP. X.

Determinations of the Scurvy, *concerning the difficulty and facility; hopes, or diſpair of Cure.*

BEfore I enter upon diſcourſe of the *Cure*, to lay down *fundamental Precepts* and *Rules* upon which it doth depend; I ſhall ſay ſomething as to the poſſibility of the Cure in *particular perſons*, in whom there is a great difference; that by examination every one may give a *rational conjecture* of their own condition and ſtate in this *Diſeaſe*, and be ſomething ſatisfied of the difficulty or facility of their *Cure*, before they undertake the *Courſe* and *Method* to effect it.

Many there are more curious and inquiſitive to know what their diſeaſe is, how *dangerous*, and whether *curable*, than they will be induſtrious afterwards for a *Cure*: If it be the

beginning of a diſeaſe, and not very troubleſome, they contemn and ſlight it: If it be of *long ſtanding* and difficult to deal with, they *diſpond* and have no hopes to part, being ſo long aſſociated together; and then give themſelves the liberty of their fancies in the diſcipline and order of themſelves, whether it be good or bad, for or againſt their *diſeaſe*.

Others more *rational* in their actions, deſire a *ſatisfaction* concerning the nature and *radication* of their *diſeaſes*, and ſtate of their bodies, that they may order themſelves to the beſt advantage, and to *oppoſe* their diſeaſes with *ſtrictneſs* and *diligence*, in the uſe of good means, as is thought requiſite for ſuch a *Cure*.

In ſatisfaction to ſuch which are *ſcorbutical*; that you may know in what condition you are, and the ſtrength of your *diſeaſe*, and what *poſſibility* of Cure, whether difficult or more eaſie: Examine your ſelf by theſe *queſtions*, and *prognoſtick determinations*.

1. What *functions* in the body are decayed and irregular, *more* or *fewer*; and whether ſuch *faculties* ſo injured, be

be *principal*; or of a *lower degree*: For, according to the number of *functions* disordered and debilitated, is your disease better or worse: And if they be from principal *faculties*, the worse also: Therefore look to the distinguishing *Characters* that belong to each *Faculty*, which will declare whether they perform *regularly*, or disorderly and deficiently: The *Characters* of *Rectitude* are the common salubrious signs, when every part performs its office according to the *custom* of *Nature*: The *Characters* of declension, and a depraved condition, are all such as declare the contrary: and these are fully declared in the *diagnosticks* of this Art, where you are to be farther satisfied, being too much to insert here.

2. The *duration* and time, how long such *symptoms* and *signs* have appeared and been manifest; for by how much the *longer* this disease hath been rooted in the body, by so much the more *difficult* it is to be *eradicated*; for that the *faculties* have so long deviated from their *rectitude* and integrity, and are more difficult to return, by the length of time *habituated* to the

contrary. The *Scurvy* in the beginning is of easie cure, and soon yields to gentle Medicines, properly appointed, with due orderly customs; but after it is fixed and radicated firmly by time, stamping *impressions* of its depraved nature upon some principal parts, it is then more *stubborn* and *difficult* to be removed, and will require *more time* in the prosecution against it, although with *effectual* Medicines.

3. Whether the *Scurvy* be hæreditary; that is, descended of *Scorbutick Parents*, or their *Ancestors:* And here you must know, that the *Scurvy* hereditarily derived, is worse than that which is acquired by ill *dyet*, and bad air, melancholy, and unwholsom customs: For, if the *Scurvy* be worse and more difficult to be removed in those habituated to it, by length of time, acquired only by a declension and degeneration; then much more when it is radicated in the principles of Nature from the birth, and derived from their Parents or Ancestors, it being then connatural to them *a principio, in principiis.*

4. What *sex*, Male or Female: The

The *ſex* makes ſome difference in the *facility* or *difficulty* of a Cure; it being *worſe* in *Women*, who are more *obnoxious* to the prejudice of this diſeaſe than *Men*.

Firſt, Becauſe they are of a *weaker* nature, more apt to degenerate and accumulate ill *humours*; whoſe conſtitutions are *ſooner changed*, being more expoſed by ſuch a *feminine debility*, not ſo able to reſiſt the *procuring* and *occaſional cauſes* of this diſeaſe, as *maſculine vigour*, and fortitude of their vital principles. Secondly, By reaſon of their accuſtomed *courſes* in Nature which are apt to be *ſuppreſſed*, decreaſed, ſuperabound, qualitatively altered, or be diſordered in *time*, that Nature hath appointed for that *purgation*, which brings much detriment; and this happens to *Women* from ſmall occaſions ſometimes; eſpecially infirm and diſeaſed bodies, which *aggravate* and *promote* their other infirmities, or inclination to ſuch. Thirdly, In reſpect of *Childbearing* and the *weakneſſes* that attend ſuch a *condition*, which decay and abate their *vigour* and ſtrength; and in the time of their going with Child;

the

the *Scurvy* doth prevail very much; partly for some of the preceding reasons, as also that in such a *condition* they cannot so well oppose the disease by that discipline and order as is required: And several I have observed to die in Child-bed by *Scorbutick Feavers*, and some suffocated soon after a probable good Delivery, by a sudden and great *fermentation*, occasioned from the preceding Labour, and extraordinary internal *motions*.

5. In giving *judgment* of this *Disease*, the *age* of the person is to be considered, whether it be in *young* or *old*: In old age the cure is more difficult by how much the older, because the *faculties* are declined in their *vigour*, and fall off from the integrity and *rectitude* of their natures spontaneously, from their *proneness* to desist, and natural *inability* to a longer *duration*; and therefore are not to be *restored*, but may be *retarded* in their *speed* of declension; their ill affects *corrected* and *abated*, not wholly *prevented*, being the *inevitable* consequents of lapsed nature.

The *Scurvy* in *Children* argues an hereditary

hereditary taint derived from their Parents; or the *vital principles* debile and weak in their *initiation* or *plantation*; or that their *Nurſes* were *ſcorbutical*, and tainted with this diſeaſe, from whom the *Child* hath *imbibed* and drawn-in impure *nutriment*, to corrupt the *principles* of its nature in the *infancy* and tender dayes, being then more apt to receive, and longer to retain any impreſſion, *Quo ſemel eſt imbuta* --- In all theſe *Caſes* the *difficulty* of the Cure is advanced; and ſince ſo great a prejudice may ariſe to *Infants* from their *Nurſes*, therefore there ought to be a ſtrict and *diligent care* in the choice of them, and that by the approbation of an *able Phyſician* before the *Infant* is committed to them.

6. The *colour* of *ſcorbutick ſpots* declaring this Diſeaſe, is to be *regarded*; for that ſuch *ſpots* by how much they encline to *blackneſs*, ſo much the worſe: Denoting greater *degeneration* of the material product, or *extinction* of the aſſimilating faculty. *Quicquid eſt in effectu, præexiſtit in cauſa*; arguing the *faculties* to be very *enormous* and deficient; or the *materia ex qua*,

qua, and nutrimental *object* to be of a very depraved and degenerate Nature not to be reduced.

7. That Cure is more *difficult*, and will be *longer* in effecting to those that are *irregular*, *live high*, loose and *careless*; not observing *laudable Customs*, and such a Discipline as is required to oppose the Disease: As also to such whose *low condition* and *inability*, constrains them to a bad *dyet*, inconveniencies and ill *customs*, which promote and aggravate this *Disease* also.

8. Those which are reduced to a *deplorable state*, and not *curable*; may receive much *help*, and *palliation* of many troublesome *symptoms* that attend the disease: So that their *life* may be more *comfortable* and the disease *check'd* though not *cured*.

9. The *Scurvy* supervening long *feavers* and *chronick diseases* that have been ill *Cured*, or *palliated* with *large* or frequent *phlebotomies*; does commonly *præcipitate* the *patient* into a desperate *consumption* or *dropsy*.

10. The *Scurvy* habituated by *melancholy*; is not cured by *medicine*, except *melancholy* be deserted.

11. The

11. The *Scurvy* introduced by other *primitive cauſes*, and removed; if *melancholy* ſupervene and *continue*, the cure is *impedited:* Becauſe this *paſſion* puts a damp, or ſuffocates the *ſpirits*; *enervates* all the *faculties*, and *incapacitates* nature to *co-operate* with the means.

12. Lingering ſlow *Feavers*, whether *continual*, or *intermitting* called *agues*, having dependance upon the *Scurvy* (as very frequent) are not cured, if the *Scurvy* be neglected: And therefore it is, that ſo many pine and languiſh under theſe ſickneſſes along time becauſe the *Scurvy* is not diſcerned.

13. Thoſe in whom the *Scurvy* is deeply *radicated*, muſt expect a longer time, and more diligence in the uſe of means to be uſed, then thoſe of a *ſlighter taint*; and therefore in meaſuring out the time for *Cure*, you muſt extend it according to the *proportion* of the diſeaſe.

14. That the *Scurvy* is more *contumacious* and difficult to be *cured*, in ſome places than others; from ſome common *procuring cauſe* conſtantly promoting this *diſeaſe:* As where the *Scurvy* is *endemical.* Conſonant to this

Martinus, de Scorb. this is *Martinus* his *aphorism*: *Qualis aer, aqua, & sors vitæ; tales in corpore generantur spiritus ac humores, quibus habitus solidarum fere partium respondet.*

15. Dr. *Willis* gives this *prognostick* of the *Scurvy*, concerning the Cure. 'This disease being but of late stand-'ing, (sayes he) so long as the impu-'rity lyes only in the blood, not yet 'communicated to the Brain, and Ner-'vous parts, nor raised durable symp-'toms in the solid parts, is often per-'fectly cured: But if it takes deeper 'root, is propagated in the sensitive 'and motive faculties, and there does 'beget convulsive motions and pains, 'and moreover does shew its virulen-'cy, by the putting forth of spots, 'wheals or pimples, and by the wast-'ing of the gums, and rottenness of 'teeth, with other inseparable decla-'ring signs; then this disease is scarce 'ever perfectly cured: But the chief 'business of physick is to mitigate the 'most urgent symptoms, and stop their 'encrease.

Dr. Willis his prognostick. Chap. 6.

16. The *difficulty* of the *Cure*, oft-times lyes more in the *intractableness* of the *patient*, than the *contumacy* of the

the *diſeaſe:* For many a one might be *Cured* that is not, from their impatience, indiſcreet niceneſs and averſion to *phyſick*; refuſing due *obedience* to the *Phyſicians* rules; ſlightly or inſufficiently uſing his *medicines.*

CHAP. XI.

The Therapeutick or Curative part examined.

THE common *method* in curing this Diſeaſe, is carried on by theſe intentions: *Preparation* of the *ſcorbutick* matter; opening of *obſtructions*; *evacuation* of the *morbifick* cauſe; and *roboration* of parts.

For the firſt intention, namely Preparation, it is performed (as they ſuppoſe) by medicaments that are attenuating and inciſive, and by a more peculiar property do reſpect the malignant Cauſe: And ſuch medicines are compounded of theſe ingredients, *Fumitory, Spleenwort, Germander, Cichory, Borrage, Bugloſs, Harts-tongue, Enulacam-*

Enulacampane, Squils, Bark of Tamarisk, Cappar roots, Polypody, &c. Of which *decoctions* are made, and drank ſome dayes before purging, to prepare the *morbifick humour*, and make it more fit for *evacuation.*

That ſome of theſe rightly uſed, and in ſome caſes, may be good againſt the *Scurvy*, I do not deny; but, under the notion of *preparation*, is a deluſion of *judgment:* Firſt, becauſe there is no *poſſibility* of reducing this *degenerate ſcorbutick* matter into a good *ſtate* and condition, by the vegetables recited, But it muſt be exterminated and caſt off.

à privatione ad habitum non datur regreſſus. Axiom.

Secondly, for that the *humour* which you intend to prepare, is *occult* and unknown in its *properties* (by your own determination;) the *preparation* then is but a blind buſineſs, and a ſhooting at random. Thirdly, for that there is no *purgative* which attracts, *electivè*, this humour you intend thus to prepare: wherefore no *preparation* is available or beneficial, diſtinct from that which is antiſcorbutical and otherwiſe curative.

The ſecond intention is opening of obſtructions: and that is included in

antiſcorbutic

antiſcorbutic medicines; which are *aperitive*, *rariſying*, *volatiſing*, and of a *fermenting* Nature: But if it be meant only as a *previous diſpoſition* and preceding formality to the Cure; I think it more nicely diſtinguiſhed, and appointed, than neceſſary to be obſerved and premitted.

The third *intention* is *evacuation* of the *morbifick* cauſe; and that is ſuppoſed to be performed by *Phlebotomy* and *Purgation*.

Phlebotomy I cannot approve of in the uſual method againſt this diſeaſe (except there be a *plethora* urging, or a peracute ſickneſs adjoyn'd) for that this Diſeaſe for the moſt part is generated and depends upon the defect of *fermentation*; which rather requires addition of *ſpirits* (than detraction) to help the laſſated *vires*, *exciting* and *aſſiſting* their wonted *operation*: as alſo becauſe this remedy gives no emendation or purification to the bloud; the effect intended thereby. Dr. *Willis* in the matter of *bleeding* is more liberal and profuſe than the unreformed *Galeniſts*: His words are theſe? *Cum enim liquor ſanguineus valdè impurus evaſit, nullo remediorum genere certius emenda-*

Dr. *Willis his opinion of bleeding in the Scurvy. Tract. de Scorb. Cap.* 7.

quam crebra & parca extramissione: Quippe, sanguini veteri corrupto, quoties educitur, recens melior & defæcatior succedit, sayes he; 'When the 'mass of blood is very foul, no kind 'of remedy purifies it so certainly, as 'frequent letting it out, a little at a 'time: Because the old corrupt blood 'as oft as it is let out, new and bet-'ter succeeds in its place.

This *position* deserves serious *examination*; for as much as *phlebotomy* is a *remedy* rarely and nicely to be dealt with, and warily to be used, only upon very *urgent occasions* and not otherwise. The *Blood* may well be accounted the *treasury* of *Nature*: for as this store-house is *full* or *empty*, *good* or *bad*; the man is chiefly adjudged to be in a good or bad state, *Ut signum & causa*. The dependences from hence, are so many and so great, that much *caution* and *circumspection* is to be used in the *diminution* of it. I am not so far an *Anti-phlebotomist* as to *deny* and *decry* it in all *cases* and *exigencies* whatsoever; as when some great *efferation* and *effervescency* of the *blood* does threaten the *life*, if not presently *checkt* and *allayed* by an instantaneous

ſtantaneous remedy: When by *plethory* and *turgid ebullition*, *inflammation* and *ſtagnation* of the blood in a dangerous part (as an *Angina*) threatning ſuffocation if immediate *depletion* do not reſcue and reprieve the life, until generous Medicines can come to operate, diſcharge, and bring full relief: in ſuch a caſe, *phlebotomy* I ſhall not cenſure. But the *Scurvy* is no ſuch *acute diſeaſe*, does not require ſuch great *haſte* in the *ordinary* courſe of it; but that *other means* (no way injurious in the *admiſſion*, nor ill *conſequents* attending) may be uſed to anſwer that *intention* of cure, for which *Bleeding* is appointed.

Scolzius, a Collector of *Galenic doctrine* into *Aphoriſms*, gives their judgment of *phlebotomy*; which although too much *indulging* this *evacuation* in moſt *caſes*, yet in the *caſe* now in hand altogether forbids it. *Boni ſanguinis paucitas, cum multis malis ſuccis renuit phlebotomiam. Aph.* 54. de Phlebotom: *Little good blood* and much *bad*, do not admit of *phlebotomy*. And in the 90 *aphoriſm* following he ſaith: *Quando color corporis malus eſt, phlebotomiæ uſus improbatur.* *Scolz Aphor.*

batur. Aph. 90. Meaning thus much; that a *bad complexion*, declaring the *blood* to be *foul*, is not amended by *phlebotomy*, but made worſe. And the 103. *Aphoriſm* following, is to our purpoſe: *Reconvaleſcentibus vena non eſt ſecanda, quia parum habent boni ſanguinis. Aph.* 103. Sect. 3. Whereby we are taught to be very *careful* and *ſparing* of the blood, in thoſe perſons that have but a *little* that is *good:* and this is the *ſenſe* of the *Galeniſts* that often bleed to mueh; And are accounted moſt *prodigal* of this *balſamick* liquor.

The *Helmontian* and *Chymical Phyſicians*, are ſo ſparing of the blood, that they will not open a *vein* ſcarce in any *caſe*. We will conſult *Sennertus* in this point; a *judicious* and *moderate* writer, carrying an equal hand between the *Galeniſts* and *Chymiſts:* in his 6. *Chap. de Curatione Scorbuti.* Concerning *phlebotomy* in the *Scurvy*, although he does admit it in ſome caſes; yet he is *ſparing* and *diſallows* it, if the blood be very bad. *Parciùs autèm ſanguis evacuetur; cùm largiorem ſanguinis miſſionem hic morbus reſpuat, ut Eugalenus ſcribit. Si verò morbus*

morbus jam radices egerit, & ſanguini tam adſit magna corruptio, ac cacochymia, cum nullâ ſanguinis abundantia; eaque ita totum corpus occupaverit, ut jam maculæ efflorescant, & alia externa ſigna in corpore hinc inde appareant, vix venæ ſectio tentanda, ne, puriore & ſubtiliore ſanguine effluente, & craſſiore illo ac viſcido ſubſiſtente, vires ægri debilitentur: Sed tum potius ad cacochymiæ Scorbuticæ præparationem & evacuationem, primis viis tamen & ventre prius evacuatis, attendendum. You ſee that *Sennertus* does not chuſe *Bleeding* for the beſt *cleanſer* of the blood when it is very *foul*, but would have it done by other means. Not only the *Hermetic*, but the *Galenic* doctrine forbids *phlebotomy* in the caſe, Dr. *Willis* is very *poſitive* for it; and he layes a great ſtreſs upon this *remedy*, as the moſt *certain* to *depurate* the blood. *Sennert. tract. de ſcorb. Chap. 6.*

But I ſhall not oppoſe this Doctor with *Authority* only; But my *reaſon* and *experience* commands me to *diſſent* from him in this point, which is as followeth:

If it be true, That the blood *ferments* to *depurate* it ſelf from *heterogeneous*

neous admixture; and that nature in her *vigour* and *ſtrength*, needs no *art* to aſſiſt her in this *daily work*: Then, upon an *abatement* and failing herein, Where muſt we fix our eye to give an *aſſiſtance*? To *promote* this work of a good *ſanguification*, and *depuration*? It muſt be done after this manner, and by theſe *intentions*: To *vigorate* nature, to *aſſiſt* the *faculties* that are *deficient* and *decayed*, or *impedited* in their *functions*: To remove *impediments* and *vitious degenerate* matter, *in primis viis*: To open the *ductures* and paſſages that Nature hath appointed, for *extermination* and *excretion* of *excrementitious* degenerate *humours*; and to provoke nature to *ſeparate* and ſend forth any *morbifick* matter, this way or that way, moſt *commodious* for carrying of it off; as a prudent *Phyſician* ſhall think fit, and judgeth moſt *convenient* in the *caſe*: Following the advice of this good Old Philoſopher: *Ἃ δεῖ ἄγειν, ὅτι ἂν μάλιστα ῥέπῃ, ταύτῃ ἄγειν, διὰ τῶν ξυμφερόντων χωρέων.* And this is the *main buſineſs* of a *Phyſician*; and hereby nature will be *relieved* and reſtored.

Hipp. Aphor.

But what will *Phlebotomy* do? It makes

makes no *ſeparation* of *morbifick matter*, but ſends forth good and bad together; it does not *quicken* Nature and give *ſtrength*, but it *abates* and *leſſens*, by giving *vent* to the ſpirits: And therefore moſt people, after *bleeding*, do ſenſibly find their *ſtrength abated* and are more *feeble* than before. What is the *intention* of Bleeding then? *Phlebotomy*, *per ſe*, does only make a *depletion*, abate the quantity; but, *per accidens*, checks the *ebullition* and *fermentation* of the blood when it is too great and *furious*, gives *ventilation*, cools and allayes it: Therefore when the *veſſels* are ſwelling, and the blood *turgid*, hot and æſtuating; to *prevent* a miſchief coming, or *allay* a *ſtorm* and *tempeſt* in the blood, wherein is *eminent* and imminent danger threatning the life, *Phlebotomy* is an allowable *remedy*: But this is not our caſe in curing the *Scurvy*.

It will be granted, That a *Scorbutick habit* of body, for the moſt part does *ariſe* from, and is *accompanied* with, a *deficiency*, or *vitioſity* of fermentation in the chyle and blood: Both which *caſes* (in my *opinion*) does refuſe *Phlebotomy*, not only as *unneceſſary*,

ceſſary, but *injurious*. For, if fermentation be *deficient*, through the *imbecillity* of nature, wanting ſpirit and vigour, to give its due *fermental* motions; *Phlebotomy* will not quicken and *vigorate* nature in that work: But on the contrary by *impoveriſhing* her ſtock and emiſſion of *ſpirits*, ſhe is *enfeebled* more, and made more *incapable* to ſupply and repleniſh, or to *circulate* and *depurate* this vital ſtream.

But in *caſe* of a *vitious* and *corruptive* fermentation, we can expect as little aſſiſtance from *phlebotomy* as in the other: For, *Bleeding*, although it make ſome little *alteration* in *ſanguine*, by cooling; yet, it is able to do nothing as to rectify the parts that do *ſanguificare*, and are *contributary* to that work; the office of *ſanguification*, being *degenerate* in that function, is not *reſtored* and *rectified* by a *privative* remedy, as *Phlebotomy*: But it muſt be ſomething elſe that hath a *poſitive influx* upon the *faculties*, to reduce and reſtore them to their wonted *regular* duties.

BIBLIOTHECA BODLEIANA

Beſides, A *degenerate* and bad blood does ariſe oft from the *inſufficiency* and *depravedneſs* of the *prævious* alimentary

mentary matter, of which blood is made: And then the *fault* is not in the *blood* or the office of *ſanguification*, but in the *preparatory* offices and thoſe *parts* of the body *dyſcraſyed*, upon which *phlebotomy* hath no *influence*, nor *poſſibility* to *rectify*. If the Stomack makes a bad *digeſtion*, and *tranſmits* a naughty juice, to the *office* of *ſanguification*, to be *tranſmuted* and *tinctured* into blood; and hereby the crimſon *ſtream* becomes *impure*, becauſe the *errors* of the firſt *digeſtion* are not amended by the *ſubſequent*: Now, How long, or how often may a man *bleed* before the *ſtomachical digeſtion* be reduced to good order; which here is the cauſe of an *impure* and bad blood? Truly, he may *bleed* and *bleed*, to be *worſe*, and *worſe*; but he cannot bleed, to be the better for it. *Aphoriſm.*

But it may be anſwered; that *Bleeding* does not go alone, but is *accompanied* with other *means* requiſite for ſuch a *caſe*; as *digeſting* and *cleanſing* medicines alſo, to procure a good *chylification*.

Now, You propoſe ſomething to the *purpoſe*, I like well your *abſterſives* and *digeſtives*:

digeſtives: but all this while, I cannot ſee how *bleeding* comes in as a *remedy* in the caſe; or to what *purpoſe*, except to do *miſchief:* Let *bleeding* alone; but proſecute with *abſterſives* and *digeſtives*, to ſet the *ſtomack* right firſt, that there may be a good *fermentation* there; then, for a *depuration* of the blood, *excite* Nature if ſhe be *ſluggiſh*, and *quicken* the *faculties* to evacuation by the *Emunctories* and vents of the body; and then your *buſineſs* is done without *bleeding*, much better then with it.

But let us *examine* a little farther, What *good* can be gotten out of *bleeding:* becauſe it is pronounced (by Dr. *Willis*) a *cardinal remedy* againſt the *Scurvy*; and very frequently uſed, and *repeated* in the *cure* of moſt *diſeaſes*.

Firſt, I muſt ſay; The maſs of blood is not *depurated* by *phlebotomy*; let out as much as you will; *equal* parts of *good* and *bad*, will remain behind ſtill: What is the *benefit* then you can expect from it? You will ſay then (with the Author aforeſaid); The *old blood* being let out, *new* and *better* will ſupply its place. *Quippe ſanguini veteri*

Dr. *Willis de Scorb. Chap.* 7.

veteri & corrupto, quoties educitur, recens melior & defæcatior succedit.

First, by this *assertion*, the blood has no share in *tinging* the *Chyle* and making *blood*, as some do affirm; and as it is common in nature, the *greater* to *prevail* upon the *less*, to alter and change into its own *likeness*: Else the *old* blood being *foul* and naught, will also *tincture* this new *chyle*, *deprave* it and make it like to its self: For, the *additional chyle* gradually *supplying* the blood, is very small in quantity to the whole *mass* of blood; and therefore can make but *little alteration* in the *blood*: But the *blood* may soon change that little *advenient Chyle*, and make it *impure* as the *blood* is.

Secondly, The *probability* of *good* succeeding, is no more *likely*, after *phlebotomy*, than before: For as much as the *causes* that *produced* bad blood before, are now in the same *power* and *force* after *bleeding*, as before *bleeding*: For, *phlebotomy* gives no *assistance* to the *office* of *sanguification*: or to the *parts* operating *præviously* and *preparatory* to it; or the *parts* contributing to its *conversation* and *depuration*: How then can this stand with

with *reaſon*, that frequent *Phlebotomy* ſhould be a certain *remedy* for *cleanſing* the *blood*, when it hath no *propriety* of *rectifying*, or *vigorating* the *parts* appertaining to the blood; from whoſe *deficiency* and *dyſcraſy* the blood became *foul* at firſt. *Poſita cauſa, ponitur cauſatum.* Theſe parts having no *emendation* by *bleeding*, the blood remains in the ſame *ſtate*, and equally *obnoxious* to *corruption* and a *degenerate* ſupply as before.

Thirdly, If I ſhould aſk the *queſtion*, How much *blood* muſt be let out, before all the bad *blood* be *emptied*; ſurely a *prodigious quantity* muſt be *allowed* to be vented, before all the *foul blood* would be ſpent; conſidering the great quantity of blood that is in a mans body; as alſo that there is a *dayly ſupply* brought in: Which additional muſt be tainted too, coming *into* and *admixing* with an *impure maſs* of blood. This would prove a very *tedious* way of *purifying* the *blood*, if there were any *certainty* of it in the *end*.

They that enter upon ſuch a courſe of Phyſick, interrupted and pulled back, with frequent *reiterated phlebotomy*;

botomy; muſt allow ſome *years* to finiſh the cure in: and this long teadious buſineſs (*cunningly*) muſt be imputed to the *contumacy* of the diſeaſe: but more rightly to be charged upon the *imprudency* and *pertinacy* of the Phyſician, perſiſting in an *indirect* courſe, and uſing *improper* means.

But to this it may be anſwered: That it is not intended by *bleeding*, to let out all the *blood*; but, when ſome of it is gone, *Nature* will be able to *deal* with the reſt, and *purify* it, with *good helps* by *medicine*.

This ſeems a *plauſible Excuſe* and pretence to common judgments; yet not *ſufficient* and *valid* to ſupport *phlebotomy*. You do not conſider that in taking away the *blood*, you take away a *part* of *nature* too. If you can *ſeparate* the *blood* from *Nature*, that is, take out the *blood*, and leave the *ſpirits*, which is the *ſtrength* of *nature*, then I am for you and *bleeding*: But this cannot be done; for, with the *blood* goes alſo the *ſpirits* and *ſtrength* of *nature*; that the *caſe* is the ſame now as it was *before bleeding*: The bad *blood* is *abated*, and *Nature* is *abated* alſo. *Jam ſumus ergo pares*. Nature now

now is no more able and *accommodated* to purify the *blood* than before.

But good *medicines*, you will say, can *restore* and *fortify Nature* again: Yes, that is true; but to do *what?* To help her self in the *restoration* of what was *lost*, and *depuration* of the *remainder*. I see now, where the *stress* of the *cure* will lye; Upon the strength of *nature* and other *good means*; not *bleeding*: At the last, though *nature* be *weakned* and impoverished by *bleeding*; yet by *other good helps*, depurative, corrective, and restaurative, she must do the *work*, or it must not be done: And why could not *Nature* do it before *bleeding* with such *good helps?* Every whit as *well*, in my opinion, and much *better*: for *bleeding* hath done nothing all this while, except rendring the Patient in a worse capacity, and more unfit for cure than before: for, no faculty is rectified nor roborated by bleeding; the vital stream as foul and impure after, as before bleeding; the whole man as unable and unfit to make good digestions and a good nutrition after, as before; and most probable, less able to perform those functions aright, being exhausted

ſted and impoveriſhed in ſpirit and ſtrength. But here lies the cheat of this ſuppoſed remedy *Phlebotomy*; and which only hath kept up its credit: becauſe ſome ſymptoms are palliated and diſapear for a time (in ſome caſes) therefore bleeding is thought to have done ſomething conſiderable towards a Cure; as when ſome pains ceaſe after bleeding; or eruptions and diſcolourations of the ſkin do ſhrink in, dy and vaniſh for a time; it is then ſuppoſed that the Cure is almoſt, if not altogether wrought and great matters performed: and this ſaves the Phyſicians reputation, whoſe virulent, tabefying, and colliquating purgatives, was not able to do thus much as bleeding hath done. But for all this, the Patient is but *conſened* inſtead of *cured*; the root of the diſeaſe remains behind ſtill; and the next Spring or Autumn (if not ſooner) there is the ſame work to do, as there was before: the old leaven is in the blood ſtill, and when nature recovers this exhauſtion, and becomes repleat again; the old ſymptoms revives alſo, and the Patient is in *ſtatu quo prius*: he is as much troubled with

with his foul ſcorbutic blood now, as before. Diminution of it may give a little check or allay to ſome exorbitancies thereof; but yet here is no emendation or depuration of the blood by this ſuppoſed great antiſcorbutick remedy.

This frequent *ſanguimiſſion*, and impoveriſhing of nature, ſeems to me a pretty device to keep a Phyſician always in practice; and ſometimes in credit too: for by this artifice of palliation (which ought to have been performed radically) the ſilly Patient is wheedled into a good opinion of his Doctor. But what are the conſequents of this bloody courſe? truly, by this frequent detraction of blood; the Patient runs the hazard of falling into dropſy, corpulency, or a feeble conſumptive ſtate, which often happens: and then our *Phlebotomical* Phyſician hath a new piece of work to take in hand; and it paſſeth currantly that the former was cured. Thus tinker-like (pardon the homely compariſon) one diſeaſe is ſeemingly amended, and another made that is worſe: yet readily the Patient reſigns himſelf again; he will not part with

with his good old Doctor, that hath had the experience of his body: not diſcerning all this while, that the ſmothering of thoſe little ſymptomatical appearances by unlawful means; introduced this deluded Patient into a more deſperate condition. After this rate, and by ſuch courſes, many people looſe their lives in a ſhort time; or linger long in a valetudinary and ſickly ſtate.

This Author or aſſertor of frequent *phlebotomy*, hath compared the degenerations of mans blood, with thoſe of Wine; intending by the one, to illuſtrate the cure of the other: but if the Vintner ſhould prove no better an Artiſt in curing his Wines, than to let it run out ſo oft as it does degenerate and decay; he would not thrive ſo well of his trade: nor ſhall that Patient thrive well in his body (at leaſt not ſo well) whoſe vital liquor is often tapt, and prodigally thus ſpent.

Phlebotomy is not *indicated* properly and directly, by the *quality* of the *blood*, but by the *quantity*: Therefore, in ſome ſpecial *caſes*, as of *Plethory* and *Turgency* of the *blood*, *phle-*

botomy may be *adminiſtred* with ſome *advantage*, as a preſent *remedy* in an *acute diſeaſe*, that will not ſtay for *means* of a *leſs ſpeed*, to make a depletion. But this is not our *caſe* in hand; we are now upon a *Chronic diſeaſe*, conſidering of *depurative* means for the blood, *quatenus* impure; indefinitely and without reſpect to *ſpecial caſes*. If there be a *plenitude*, and the blood apt to be *ſtagnant* and *obſtruct* in the ſmaller *veſſels* and *ductures*, hindering a free *circulation*; Or ſome great *inflammation* and *æſtuation* cauſing great *diſquietude*, *pain*, *inſomnolency*, and eminent danger; in *ſuch caſes* bleeding may be allowed, as a preſent allay and palliation. But as for *emendation* of the *blood* in a *Scorbutick* impurity, *præciſely* conſidered in its own *nature*; that *degeneration* of the blood, does not *indicate bleeding*, but *depuration* and clenſing, which bleeding cannot perform.

If we look upon the *nature* of the *Scurvy*, at leaſt the moſt *frequent caſes* in that *diſeaſe*; we find the *ſpirits* depreſſed, or *depauperated* and *exhauſted*; the *blood degenerate* from a *balſamick* ſtate, become *acid*, *ſharp*, and *ſerous*;

ſerous; abounding with a *fixed ſalt*; fermentation *inſufficient* and dull; the *Digeſtions* languid or *depraved*. In this *condition* of body, what will *bleeding* do? *Advance* and ſet forward the foreſaid *evils*: It *reſiſts* none, it *aggravates* all: Therefore ſay I; *vitioſity* and *impurity* of *ſcorbutick* blood, conſidered *abſtractly* from other *accidents*, and in its own nature, does not *indicate phlebotomy*, but *depuration* by other means, *proſcribing* the *impurity* by the common *ductures* of nature; and by *fortifying* the *digeſtions* for an *elaborate balſamick* and plentiful *ſupply*.

But it may be *objected*, That there is two different *conſtitutions* of body in *ſcorbutick perſons*: The one *cold*; the other *hot*, of a *febrile* temper; and although the *firſt* may not ſo well *plead* for *phlebotomy*, yet the latter does much require it, *gradually approaching* towards a *feaver*; or may be called a conſtant *Feaver in gradu remiſſo*: Such perſons are to be *cured*, like thoſe in a *Feaver*, by *Coolers* and ſuch means as *allay* the fiery *heat* of the blood, which frequent *phlebotomy* does perform: And Dr. *Willis*, in adapting *Objection.*

Medicines for his *deſign* of *cures*, diſtinguiſheth theſe two *conſtitutions*, and calls the one *Salino-ſulphureous*; the other *Sulphureo-ſalinous*: And theſe are two *capital characters* that divide his *medicines*, being *accommodated* to theſe two *conſtitutions*.

Anſwer. To which I anſwer: Firſt, that this ſeeming *diverſity* of *conſtitutions*, does not ſo much *point* at, and *indicate diverſity* of medicines and *method*; but ſhews that ſeveral *individual* natures are differently affected with their *diſeaſes*: The one lyes more *ſubmiſſive*, *calm* and quiet, lets the diſeaſe prevail without *ſtrugling*; the other, not willing *ſuccumbere*, to be trodden down, does *inſurge* againſt the *morbifick cauſe*; the ſpirits *æſtuate* and kindle, being diſturbed and *diſquieted* in the execution of their *functions*. So that the *morbifick matter* may be the ſame, and the *parts affected* the ſame: but the difference is, one *ſubmits* being more *ſluggiſh*; the other more *active*, *contends*. And this is *Peculiaris natura*, individual *propriety*, and not different *caſes* of the *diſeaſe*, indicating *diverſity* of *medicines* and method: and therefore, if there be no other

other *individual propriety* but heat; nor *special complication* of diseases much to alter the case; then, the *medicines* and the *method* need not be altered; but the same *medicines* are as truly *apposite*, and *appropriated* to the one as to the other.

Secondly, The *conceit* of adapting *medicines* to hot and cold *constitutions*, ariseth from an *erroneous* apprehension of *Feavers*, and a great mistake in the *essence* and nature of them; not discerning that the *calor febrilis* ariseth from a *principle* different from the *materia morbifica occasionalis*: This febril heat does not arise from a *sulphurous* matter inflamed, as is supposed; Which begets many *absurdities* in the cure of hot *diseases*; (hence the *barly waters*, the *cooling Julips*, and repeated *phlebotomies* to quench this *flame:*) For this *febril* heat, is it but the *æstuation* of the *Archæus* according to *Helmont*, which is the *impetum faciens* of *Hippocrates*, that does contend and insurge against any *hostile morbifick Matter*; and this *Helmont* hath well noted. *Accendit nimirum se ipsum Archeus, in nisu, quo cuperet expellere materiam occasionalem, tanquam* *Helmont Tract. de febr.*

ſibi impactam ſpinam. Hanc autem quicunque anſert, ſive id fiat per calida media, ſive per temperata, ſive demum per frigida, is morbum à radice tollit, & eſt naturæ quaſi indifferens: quia eo ipſo ſedatur, ceſſatque thymoſis Archei: Quamobrem calor, utcunque præter naturam auctus, indicium poſſit eſſe febrium; non eſt tamen ipſe febris, nec illi ideo, inter medendum, magnoperi eſt inſudandum. Hinc nempe Hippocrates ſerio monuit, Calorem & Frigus, non eſſe morbos, ut neque morborum cauſas: Sed cauſas (nimirum occaſionales) morborum, eſſe amarum, acre, ſalſum, ponticum &c. Spiritum vero eſſe eum, qui impetus omnes facit.

He that is acquainted with, and rightly underſtands this *doctrine*, will not be ſo ready to let out the *ſpirits* by *phlebotomy* upon trivial *occaſions*: He preſerves the *vital ſtream* (unleſs extreamly urged) and does *ſedare*, allay and pacify, the *æſtuating* kindled *ſpirits*, by adminiſtring what is proper to eject and throw out the *morbifick matter*, the enemy and *diſturber* of the peace. Nor is he troubled about *hot* and *cold medicines*: Nature is not more offended at *hot*

medicines

medicines in the time of *ſickneſs*, than at *hot meats* in the time of *health*. Febrile heat is as well quenched with *hot things*, as with *cold*; and much ſooner: For *coolers* only, are but like the ſprinckling of *water* upon *fire*, which burns the *fiercer* for it afterwards; *Coolers* do but caſt a *damp* for the preſent, makes a *ſuppreſſion* of the *heat*, and it burſts out again: But *hot medicines* that have *ſpirit* and *life* in them, aſſiſt nature in ejecting of the *peccant matter*; which being thrown out, the *ſpirits* return to their *reſt*, and *cool* of their own accord, being freed from the object of their *fury*: And therefore one good *Sudorifick medicine* checks a *Feaver*, and *cools* the body better than ten *Julips*. And if it prove ſo in the greater diſtemper (a *Feaver*) it will perform the ſame in the *leſſer*; where the body only is *denominated* of a *hot conſtitution*. The argument is, *a majori ad minus*,

But, by the way, I muſt tell you, wherein I differ from other *Phyſicians*, when I grant my *patients* cooling drinks; as *Whey*, *Sider*, or ſuch like when deſired in *Feavers*, or *hot bodyes*:

They lay a great *stress* upon *Coolers* as *principal* means against the *disease*, and to *reduce* the *distemper*; *I allow* them, not as *physick* against the Disease, but as *refreshment* to Nature, being delighted therewith and coveted: So that I do not *impose* them as of *necessity*, because the *disease* does not require them; nor are they a proper curative remedy: but observing the *propriety* of the body being *comforted* and *refreshed* with such or such *cooling liquors*, I grant the use of them: So that these are not given as *medicine* (for they *cure* not; nor is *heat* to be regarded otherwise than as *signal*) but they are allowed as *refreshment*. A labouring man that toyls and *heats* himself must have drink to *refresh* him: Even so it is with a man, in a *Feaver*; his *spirits labour* more, than at another time; and more *thirsty*, requiring *drink* more, than at another time; and it must be such as *delight* him, that nature does *desire*; not *Barly water*, *Julips*, and such *slops* that the patient *nauseats*, and gives him no *satisfaction*.

But to return to our subject *Phlebotomy*: When nature, troubled at any *morbifick*

morbifick matter lodged in any *part* as an *injurious gueſt*, begins to *fret* and to be *diſquieted* ('tis nature that *contends*, and makes the *diſturbance*) the *ſpirits* kindle, raiſe their *fortitude* and power to *reſiſt*, to *exterminate* and caſt out this inbred *Enemy*. This is the *caſe* of preternaturally *hot conſtitutions*, ſignally *intimating* that the *ſpirits* are *diſturbed*, and offended at ſome *morbifick cauſe*. What good does *Phlebotomy* in this *caſe?* Truly it *damps* and *diſcourageth* Nature, abates her *courage* and *ſtrength*, puts her quite off her *purpoſe*, checks, *allayes* and *diſſipates* the *ſpirits* that were ready drawn up to *encounter* the *enemy*; expecting the aſſiſtance of *Art*, inſtead whereof ſhe is *knockt* down by *Phlebotomy*: The *patient* now finding the *conteſt* over, or the *diſturbance allayed*, thinks he is well *cured*; but alas he is not aware that the *morbifick matter* is left behind ſtill; it did not go out by *bleeding*; but *Bleeding* ceaſed the *quarrel* for a time, until Nature *recruits* again and *recovers* this loſs.

But ſome may ſay, 'Tis well that *Phlebotomy* does ſome good for the preſent; gives eaſe and *abatement*, until

til good *medicines* take away the *cauſe*, which is to be done afterwards: But if I ſhould aſk why could not this *cauſe* be taken away before *Bleeding*, as well as *after Bleeding*; I doubt the anſwer would not be *ſatisfactory*, but very *imperfect*. And farther, although *Phlebotomy* were allowed as a *palliative medicine* to pleaſe the patient, in the *mitigation* of ſome troubleſome *ſymptoms* that attend his diſeaſe; and make the *Phyſician* acceptable to him upon his firſt *adminiſtration*; yet this does not countenance *repeated Phlebotomies*, under the *notion* of *depurative remedies*, and the beſt *curative* means, for a *Scorbutick impurity* of the blood.

Indeed ſometimes, the *impatiency* and *peeviſhneſs* of the *patient*, urging for a *ſpeedy cure* or preſent *allay* of ſome troubleſome *ſymptoms*; forceth a *Phyſician* to *palliate* their infirmities by *Phlebotomy* (being an eaſie and cheap remedy, and the time given him but ſhort) that might *ſubſtantially* and *firmly* be effected by other means in due time. But it is one thing to be *urged* to *Phlebotomy*; another, to plead for it.

Plethora

Plethora Sanguinis is the adequate *indication* for *Phlebotomy*; but being in other caſes without urgency uſed as a curative *remedy*, argues a *deficiency* and *want* of good *Medicines*: And then *Phlebotomy* comes in, not properly *indicated*, but *ſubſtituted* in the vacancy of *proper Medicines* and anſwers not *directly* and *per ſe*, the *ſcope* and *intention of cure*, but only *palliative*, and by way of *mitigation*.

Some there are that appoint *Bleeding*; not conſidering ſo much an *indication* for it and *neceſſity*, as the cuſtom and preſent *faſhion*: Thinking their *method* of *cure* not *compleat* except this come in *courſe*: Others fall upon *Bleeding* not prompted to it by *indication* but neceſſity of *variation* and *tryal*; for, having uſed ſeveral *medicines* with little *ſucceſs*, they pitch upon *Bleeding* as the laſt *refuge*; and that failing too, think they have *tryed* all means, and done what comes within the compaſs of *Art*. *Helmont* ſayes, and that very truly; *Natura corroborata, eſt morborum medicatrix*: If this were rightly conſidered in the whole *practice* of *Phyſick*, there would not be ſuch a *frequent* recourſe to *enervating Phlebotomy*. *Helmont.*

If

If ever *blood* may boldly be let out, it is in ſuch a perſon, whoſe *craſes* of principal *parts* are *firm* and good, that their *faculties* do perform in the *rectitude* of their *Office*; ſo that, an *exhauſtion* of blood being made, a *new ſupply* and good may probably follow: But if the *parts* be *dyſcraſyed*, depraved, and out of order, what can you expect from their ſupply: *Cujus cauſa mala eſt, id ipſum malum.* Now this is the *caſe* of *Scorbutick* perſons, in whom the *Scurvy* hath taken root; ſome *principal part* or parts appertaining to *ſanguification*, *prævious* or *conſervative*, is vitiated, decayed or much *altered*, from whence the production of *impure Scorbutick* blood is the *conſequent*; and from thence many other *Scorbutick ſymptoms* do ariſe.

Feavers are accounted in the number of *primitive cauſes* that *introduce* the *Scurvy*: Now in the cure of *Feavers*, the *leſs Blood* is let out, the *leſs danger* there is of a conſequent *Scurvy*; for, as the *Feaver* by *æſtuation* and preternatural *fermentation* conſumes and wears out the *ſpirits*, leaving the blood thereby *impoveriſhed* and *diſpirited*,

rited, loſing its *balſamick properties*; ſo likewiſe *Phlebotomy* makes a *profuſion* and *exhauſtion*, which produceth the ſame *effects*. When a *Feaver* ariſeth in the *Blood*, comes ſuddainly and *furiouſly* like a *ſtorm*; then *Phlebotomy* may tolerably be admitted as an *allay* and check to the *tempeſtuous fermentation* until other means take place: But, *repeated Phlebotomy* argues *inefficacious* languid *medicines*; elſe the *Phyſician* need not have recourſe to this *palliative remedy*, of pernicious *conſequence*: He that *bleeds* and *bleeds*, in a ſickneſs; is more beholding to Nature in his recovery, than to his *Phyſician*.

Indeed, ſome there are that make *Phlebotomy* their *grand remedy* in *Feavers*, and repeat it ſo often as any febril heat does manifeſt: And *Nature*, being thus ſpent and ſtrength *exhauſted*, does *ſuccumbere*, leaves off contending, lies *proſtrate* and *quiet*: And now the *Phyſician* thinks he hath *conquered* the *Feaver*; rather it may be ſaid, he hath *conquered Nature*, and laid her flat: For, that *ſpirit* of life which warms and *preſerves* natural *heat* in *health*, is the ſame that *æſtuates*

and

and grows *hotter* in *ſickneſs*: So that aiming only, or chiefly to allay this *heat*, is, endeavouring to ſuppreſs *Nature* not the *diſeaſe*; for, *cauſa peccans in febri, non calet ex ſe*, according to *Helmont* and the truth. In ſhunning *Carybdis*, he daſhes upon *Scylla*; he feared ſo much the preſent danger of the *Feaver*; he *precipitates* the *patient* into a contumacious *Scurvy*, and lingering *Conſumption*, and indeed what not? 'Tis a long time, before a perſon ſo *cured* of a *Feaver*, recover his *ſtrength* and *integrity* of his *faculties*, if ever he wades through that *ſickneſs*: And by ſuch ſtrange uſage of the ſick, the *Scurvy* ſo frequently takes place after *Feavers*, from theſe indirect wayes of curing. My ſelf in the year 1650. being ſick of an *acute Feaver* in *Maryland*; was indiſcreetly bled by my *Phyſician*, in the *declination* of the *diſeaſe*, to my prejudice.

Helmont.

The *Galeniſts* are *religious* expecters of a *Criſis* in *Feavers*; but if you *bleed* much, your *criſis* will be long in coming: I fear your *patient* may be *dead* firſt; or at beſt, you introduce a *Chronick diſeaſe*, the *Scurvy* is the *conſequent*: Not that I deny *Criſes*; but I blame

blame unneceſſary and pernicious *Bleeding*. A good *criſis*, or *critical* evacuation, is a ſign of *victory*, that Nature hath *conquered* and gotten the *maſtery* of a diſeaſe, does *expel* and caſt out the *morbifick matter*; and Nature according to her power is continually working and ſtriving to *effect* this for her *relief*: And for performing and effecting this *deſign*, the more *vigorous* and ſtrong Nature is, the *better* will be the event. *Si ipſa ſibi natura debeat eſſe medicatrix, tantóque felicior, quò fortior*; ſayes *Helmont*. *Helmont.* But bleeding *debilitates* and exhauſts the *ſtrength* which ſhould *contend* with the *diſeaſe*: How can you then expect a good *criſis*, when Nature is *enfeebled* and *checkt* in her *encounters*; and by the *ſtrength* of Nature, the *criſis* is procured ſooner or latter, as Nature is *ſtrong* or *weak*.

But you will ſay, What? Shall we not *bleed* in a *Feaver*? Muſt we not cool the blood, when it's *hot* and *fiery*? In ſome *caſes* and *plethorick* perſons, it is lawful; but, to appoint it ſo *generally* and *unneceſſarily*; when other *means* may better be uſed; to *repeat* it ſo often 2, 3, or 4 times *perniciouſly*,

niciously, this is highly to be *Censured*; there being other better wayes and means to *cool* the *blood* and *allay* the *Feaver*: But the *Galenists*, if they may not *Julip* and *Bleed* their patients in *Feavers*, they are *nonplust*; they are at a *loss*, and know not how this febril *heat* is to be allayed otherwise, which makes them insist upon the *repetition* of these *seeming*, but *deceitful* remedies.

I think now, 'tis time to have done with *Bleeding*; my discourse was not intended so large upon this *subject*: But one thing more I must *mention* that had almost over-slipt me; and that is the opinion of a supposed *sulphureous matter* inflamed in the *Blood*, which maintains this febril *heat* in *Feavers*; as also in *hot* bodyes denominating the *constitution*, *sulphureo-salinous*, as Dr. *Willis* distinguisheth; and *grounds* himself upon this *opinion* in his discourse of *Feavers*, as also in his *Tract* of the *Scurvy*. And this is taken up from the *similitude* of our common *fires*, that burn and heat so long as there is any *combustible matter* to maintain it; of which *spirituous* and *sulphureous* substances are most *inflam-*

Lib. de Feb. cap. 7 Tract. de Scorb. cap. 1, &c.

able

able. From hence *Feavers* are accounted a *deflagration* of the *Blood* in like manner; from *ſulphureous* kindled matter, that makes the *preternatural heat*: And from this *notion*, are the *intentions* of *cure* framed and deſigned. But I am otherwiſe perſwaded, (againſt this Philoſophers opinion). and do anſwer, in defence of the truth, and a more rational Doctrine.

Firſt, That this *æſtuation* of the *blood* in *hot* bodies *denominating* the conſtitution *bilious*, or *ſulphureo-ſalinous*; in high or *intenſe Feavers*; does not ariſe from a *ſulphurous deflagration*; but a preternatural *fermentation* and *ebullition*, from a diſſent and difference between *immiſcible* particles: As *acid ſpirits*, joyned with ſome *fixed ſalts*, though neither of them *ſulphureous* and inflamable; yet by their *conteſt* and repugnancy, cauſe *ſmoak*, *heat*, and *boyling*.

Secondly, That the *Archæus* or vital *ſpirits* as they do preſerve and maintain natural *temperate heat* in a ſtate of *health*, being vigorous *placid* and *calm*; So likewiſe do they *excandeſcere*, wax hot, burn, and are reſtleſs, by *irritation* and *provocation* from

any *morbifick* matter (not *ſulphurous*) or dyſcraſy; *à cauſa occaſionali quacunque.*

Thirdly, That common *elementary fire*, and our Vital heat; as they do *generically* differ, and ſtand upon a far different *baſis* and *principles*; ſo are they *maintained*, *intended*, *remitted*, or *extinguiſhed*, by far different ways and means, and therefore not to be drawn in or aſſociated *parallelis*; nor their *cauſes* to have any ſuch *affinity* or *parity.*

Fourthly, That there is more *ſpirit*, and *ſulphurous* matter, in a perſon of *temperate heat* and in good *health*, than in him that *burns*, or is of a *hot feavoriſh* temper: And therefore this *calor febrilis* is not, or doth not ariſe, *a ſulphure accenſo*; (as Dr. *Willis* would have it) but *ab Archæo irato æſtuante*, and the particles of the *blood* conteſting, and having *reluctance* with each other. This will be verifyed upon a *hectick conſumptive* perſon, that is very hot and burning; whoſe blood abounds with an acrid Seroſity, having loſt its *ſulphureous* and *ſpirituous* balſamick properties.

Fifthly, That the *ſulphureous* and *ſpirituous*

ſpirituous part of the blood being moſt volatile and ſubject to be preyed upon, and conſumed by heat; is firſt *waſted* and *deſtroyed*, as an *effect* of this preternatural *heat*, not the *cauſe*; and therefore not properly *denominating* the *conſtitution* in this condition, being in a *ſtate* of continual *diminution* and *decreaſe*.

How ſoon does *pain* cauſe *heat* in the body? And this *pain* being *ceaſed*, the heat *vaniſheth*: Now we cannot in reaſon imagine, that this *heat* ariſeth from a kindled *ſulphur*; that muſt go *out*, and *in*, ſo oft as the pain *comes* and *goes*. Alſo upon the overeating of *plums*, *apples*, and drinking of much *ſmall-beer*, in Summer; we know that a *Surfeit* and *Feaver* is commonly procured: Now *Apples*, *ſmall-beer*, and ſuch like is more probable to *extinguiſh* any *ſulphureous* matter *inflamed*, than to *kindle* it or *maintain* it. Therefore ſay I; *Febril heat* is not *a ſulphure exaltato & accenſo*, (according to the doctrine of the forenamed Author) but (briefly) as we have delivered.

Now to return to *Phlebotomy*, ſhewing the inconvenience of *Bleeding* Scor-

butick perſons, as a *general remedy* reſpecting the *dyſcraſy* and *impurity* of the *Blood:* I ſhall conclude it, and give you the *reſult* and *ſum* of the *diſcourſe*, in this following *Corollary.*

Where there is a *Plethora* urging, and for want of *ventilation*, cauſing an *acute diſeaſe*, eminently threatning the *life* by ſuddain *tempeſt*; *Phlebotomy* may lawfully be *celebrated*, as being the moſt *ſpeedy relief* in ſuch caſes to *abate* the *turgency* of the *Blood*; if excellent and proper medicines be not ready at hand to allay the ſtorm. But in *Chronick diſeaſes* that are ſlow of motion, giving *time* and *ſpace* for the invention and uſe of *Medicines* and a good *diætetick regiment*; thoſe *indications* that ſeemingly require *Phlebotomy*; are much better ſatisfyed by other means, and *medicinal remedies.* Since then the *exhauſtion* of blood by *Phlebotomy*, does not *meliorate*, but *minorate* the blood; does not *incourage* and *vigorate* nature, but *weaken* and *impoveriſh*; does not *promote* the office of *ſanguification*; does not *ſeparate* and *depurate:* It is not therefore to be admitted, as a *generous* and *general* remedy in *chronick* diſeaſes

Anacephalæſis.

diſeaſes as the *Scurvy*, that gives time and leiſure for *emendation* of the *blood* by *means* that puts nature upon *ſeparation*, *elective evacuations*, and excretions; not *promiſcuous effuſions*, as *Phlebotomy*.

The next conſiderable in the *common method* of cure to be examined, is *Purgation*; and that is appointed to be performed by ſuch *medicines* chiefly as *evacuate Melancholly*, ſuppoſing that *predominant humour* to be the cauſe of this *Diſeaſe*; but if I ſhould grant *melancholly* to be the *morbifick cauſe*, and that *Purgatives* do attract *electivè*; yet the *proceſs* of the Cure is not *rationally* grounded; for that this *melancholly* (as you ſay) is *degenerate* and changed from its *ſpecifick* known nature, into that which is *ſecret* and *unknown*; *metamorphoſed* and diſguiſed by *occult properties*, ariſing from its *ſecret* and *new* Nature: So that it is not the ſame, but *another humour* diſtinct from what it was before: And now you muſt ſeek for *another Purger*, peculiar and different from the *common Purgers* of melancholly. And farther, here is a *great miſtake*, in taking that to be the *morbifick*

bifick cauſe, which is the *morbifick effect*: That excrementitious matter which is purged out, is but the *product* or *effect* of the *Diſeaſe*, not the *cauſe*. You muſt diſtinguiſh between the *Diſeaſe*, and the *product* thereof; *depraved* matter and *excrements* are the *products* of a Diſeaſe, and may be the internal occaſional *cauſes* of another Diſeaſe: But in reſpect of the *Diſeaſe* of which they are ſo a *cauſe*, they are *external*; that is, they are not the conſtitutive eſſential cauſes: For, *Cauſæ conſtitutivæ & conſtitutum ſunt ſimul in eſſe*: But occaſional cauſes are *antecedent* and have *priority* of *exiſtence*: So likewiſe the *product matter*, or effect is diſtinct and *ſeparate* from the Diſeaſe; for that the Diſeaſe hath a *real exiſtence* before ſuch a *production*; and alſo after this *degenerate* matter is *removed*, unleſs otherwiſe *obliterated*; or that nature *ſuâ ſponte* returns to her integrity and *rectitude*.

And here we muſt take a view of the *Purgatives* that are recommended to our uſe in *Scorbutick cures*, by all the *Authors* I meet with: *Senna*, *Polypody* *Epithymum* and *black Hellebore* are

are the chief; becauſe they are ſuppoſed to purge *melancholy*: But all the tribe of common *purgatives* are brought in and intermixed with them; *Scammony*, *Jallap*, *Agarick*, *Turbith*, *Mechoacan*, &c. But I dare pronounce theſe no *purgatives*; that is, they are not *verè purgativa*, although they cauſe *evacuation*; yet it is by their *laxative venome*, and diſguſtful *properties* that *ſtimulates* nature to *expulſion*; and not a friendly wholeſome *abſterſion*: provoking and procuring of ſtools, is not ſufficient to *denominate* and *entitle* any *drug* to the priviledg and office of a true *Purgative*; if it were ſo, many more that are not *accounted* ſo, might come in and challenge their place alſo in the Catalogue of *common Purgatives*.

That which is truly *Purgative* and deſerves that *title*; is gently *abſterſive*, *balſamick* and amicably *fermenting* with Nature for *ſeparation* and *excretion*; hath no evil *properties* to provoke nature; or to *contaminate* and *vitiate* the parts where it paſſes, and diſcharges its power: But theſe *purgatives* nature receives with *reluctance*, *nauſeat's* and is ſick with them; but is

very *glad* to be *diſcharged* of them; many a one hath had as much *pain* and *ſickneſs* with theſe *purging medicines* as ever they had with their *diſeaſe*, or much more: How many have been upon the *rack* with them; and the bad *events* attending is not to be numbred.

If we take *notice* and *obſerve*, we ſhall find, that ſuch *perſons* who often *purge* with theſe *medicines*, are in *continual* need of *purging*; none *need purging* ſo much as they: For, theſe purgatives although they rake the *guts*, and *force* nature to throw out what ever ſtands in their way; yet withal they *ſtamp* their *adverſe* and *virulent* properties upon the *parts* where they paſs and extend their power, which alters their *conſtitutional craſes* ſo, that their natural *fermentations* are eſtranged and *perverted*: from whence the alimentary *ſucus* is depraved and *vitiated*, by the evil *impreſſions* of theſe *drugs*: And you ſhall hardly meet with *any* that have much *uſed*, and are *addicted* to theſe *purgatives*, but their *complexions* are much changed for the *worſe*, *pale*, *ſwarthy* or *yellow*; as I have known many

many *ſadly* altered and *abuſed* by the conſtant uſe of theſe *purgatives*; ſome growing *lean* and *conſumptive*, others *puffed* up and *ſwell'd*; their *digeſtions* decayed, and the *vigour* of the body, *impaired* and *waſted*. If theſe be fit Medicines to reduce the *dyſcraſy* of parts in *Scorbutick perſons* to their *integrity* and due *fermentations*, then I am very much *miſtaken*; but I am well *ſatisfied* to the contrary; and you may alſo, for the reaſons aforeſaid.

Indeed, *Abſterſion* or *purging* is the moſt frequent medicinal *operation* in *all cures*; and this is ſo much *inſiſted* upon and *relyed* on to bring relief; that if *purging* and *purging* will not *effect* the *buſineſs*, a great many practiſers are at a ſtand: And the greateſt *ſtreſs* of their *cures* lyes upon this *operation* and *bleeding*, with many. How induſtrious then ought they to be in finding out *medicines* that are truly *purgative* and *cleanſing*; that may be no way *offenſive* and *injurious* to the body, being of ſo frequent uſe in moſt caſes: That, as they carry off the *impurities* and excrementitious matter which is burdenſome to nature; ſo they

they may not *imprint* and leave behind them *evil impreſſions* upon the *parts*, that may beget a new ſupply and generate the like matter again.

The main *buſineſs* in *cures*, is not removing *ſuperfluous degenerate* matter only (although that is *neceſſary* too) but in *rectifying* and *roborating* the principal *parts*; which ſtabliſheth Nature, and ſettles the *faculties* upon their right *foundation*, that they do not *relapſe* and return to the old *courſe* and *bias* again. But how can this be *reaſonably* expected (although other good *medicines* be uſed) when theſe *deleterious purgatives* are ſo oft uſed, and a frequent recourſe to them for *evacuation*: Theſe muſt of neceſſity pervert the *tone* and *craſes* of the parts, and *alienate* their *genuine* and due *fermentations*: Therefore it ſeems ſtrange to me that Dr. *Willis* hath not deſerted theſe common reputed *purgatives*; but they are the purging *medicines* he uſeth and appoints for all *Scorbutick perſons*, as his book declares.

Tract. de Scorb. cap. 7.

If it be *objected* againſt me, that theſe, at leaſt ſome of them have been accounted and uſed for *purgatives* by all

all the *ancient Phyſicians* for many hundred *years*: I ſay, that is no *Argument* to convince me, nor reaſonable *ſatisfaction* to the World, that theſe purgers are *innocent medicines*; *Antiquity* is not ſufficient to clear and take of this charge laid againſt them; foraſmuch as *Antiquity* hath been found guilty of many *errors*, which a long time hath blinded the credulous *World*, too much *adoring Antiquity*, but now will no longer be deceived, but make *inquiry* whether ſuch things *accounted* and eſteemed, be ſo. If common uſe, and *ancient practice* be the beſt; and their *opinions* truth; then let us ſet down, and trouble our ſelves no farther with *inquiries* and *inventions*, but live upon the *labours* of our *predeceſſors*. This is the *force* and *ſcope* of the *argument*; but all this is frivolous and vain.

Let any one make it appear by *ſound reaſon*, and demonſtration in *practice*, that theſe are *innocuous purgatives*, amicable to Nature in all their *properties* as a true purgative ought; *& erit mihi magnus Apollo*; then I will alter my *opinion* and return to their uſe, and ſtand up in *defence* of that

reputation

reputation they have had in the World a long time; but until then I must *decry* them, as no true *purgatives* but *virulent ſtimulatives.*

Objection. But ſome may ſay, and *plead* in their defence, that Experience does witneſs for them that theſe common *purgatives* have done good, and many have received benefit by them.

Anſwer. I anſwer; and grant that they have done *ſome good*; but let me tell all the *truth*; they have done much *harm* too: I have uſed and tryed them for ſome years, in *ſeveral diſeaſes*; have ſeen whereby their *goodneſs* comes about or happens; as alſo wherein their *evil* lyes: To do ſome *good*, and to do no *harm*, is the *property* and character of a good *medicine*; but it is not ſo with theſe *reputed purgatives*. When the body is *full*, and *foul*; Nature *loaded* and *oppreſſed*; then almoſt any thing that *ſtimulates* Nature to *evacuation*, gives her eaſe, ſhe is *alleviated* and *refreſhed* by it, though by *bad means*; and many ill *ſymptoms perhaps palliated* or *abated* for a time. But all things rightly conſidered, here is no great *commendations* of the *medicine*,

medicine, becauſe but *accidentally* you received ſome help for the preſent; and withal lay a *foundation* for a *future* miſchief.

If a man fall into a River, or is thruſt in *purpoſely*, and thereby he is *cured* of an *Ague*, as ſuch ſtrange cures have hapned; yet none I think will *commend* this as a good and *conſtant remedy* to have recourſe to; becauſe this *cure* is but *accidental* and not the *proper effects* of ſuch a cauſe; beſides the *inconvenience* and *hazard* that attends it. So likewiſe in theſe *purgatives*, though ſome *good* may happen for the *preſent*, in forcing Nature to *expulſion*, by the *abhorrency* ſhe takes againſt them and is *provoked* to it; yet this is not a *friendly* and well contrived *operation*, Nature *amicably* joyning with the medicine; but a *ſtimulation* of Nature, wherein ſhe throws out, and *empties* her ſelf, by way of *diſguſt*, to quit her ſelf, and be freed from the *horrid medicine*, and the *humours* it does *contaminate* and mix with: So that the *evacuation* is Nature's; and the good that comes is *accidental*, from Nature's *conflict* with the *medicine*, and her *abilities* to throw

it

it out; with which also some *depraved matter* that was in the way goes along with it and is cast out. But the *genuine* and *proper* effects of the *medicine*, is, to *contaminate* the body, and *corrupt* the *alimentary liquors* with its *virulent properties*, not to purify and *cleanse*.

Now whether this be *rational*, and *consonant* with the rules of *art*; to *establish* any *medicine* of constant use, that is noxious *per se*, in its own Nature *depraving* and producing future *mischief*, but *per accidens* some advantage does *accrue* sometimes, for the *present*; let common *reason* judg: And this is the *case* of those *purgatives* impartially and rightly *stated*.

If any one shall say, What? Are these *drugs* good for nothing? Must they be thrown away as *useless*? If I *answer*, they are not *fit* for the purpose of *purgation*, you may be satisfied for the *reasons* aforesaid: But to tell you what else they are good for, and how to be used, is not *necessary* for me now to *discourse*.

Purgation necessary.

Purgation or *cleansing* is premitted as a *regular* and due *course* in the cure of most *diseases*; and it is *instituted* chiefly

chiefly to *cleanſe* the firſt *region* of the body, and to carry off what *ſuperfluous* or *degenerate* matter is to be voided by the *guts*: And this *operation* is neceſſary in the *cure* of moſt *diſeaſes*, though ſeated in other *parts*: For, although the *infirmity* lye not in the firſt *region* of the body, neither in the *ſtomack*, *gall*, *guts*, *meſentery*, *liver*, nor *ſpleen*; yet 'tis *aggravated*, if thoſe parts be *foul*: and *probably* may be the *original* and foundation of thoſe *remote infirmities*, by *conſent* or *tranſmiſſion*; nor ſhall medicines carry its vertue without *impediment* and *abatement*, or food *clearly* and *cleanly* conveighed to *nouriſh* the body, if theſe parts be *foul*, clogged, and *obſtructed*.

Now ſince it is ſo; that *evacuation* and *cleanſing* is neceſſary in moſt *caſes*, and this *operation* ſo uſeful and moſt *frequent*; then how careful and exact ought *Phyſicians* to be in making choice of ſuch *ingredients*, in preparing and *contriving* them into ſuch wholeſome *medicines* as may *perform* this *operation*, with as much *kindneſs* and *friendſhip* to Nature, as other *operations* are *performed*: Not every

medicine

medicine that cauſeth ſtools; not any *purgative* that *ſtimulates* by a *laxative venom* will do your buſineſs; but ſuch as are *balſamick*, having *amicable abſterſive* properties no way injurious to *Nature*.

'Tis very *conſiderable* the choice of a fit and good *medicine*, that will cleanſe the *ſtomack*, *guts*, *meſentery*, &c. without offering *injury* to their peculiar *craſes* or *ferments*; that is, not to *alienate* them from their proper *diſtinct natures*, not to *impreſs* and ſtamp new *qualities* upon them; this is a *medicine* you may freely uſe, and *expect* good *relief* from, in keeping the forenamed parts *pure* and *clean*; as alſo a great *aſſiſtant* and *help* in the performance of divers *cures*, and ſuch a *medicine* is to be uſed in the *cure* of *Scorbutick perſons*: But if you uſe *purgers* (falſly denominated) of a *deleterious* and *virulent* quality, that operate *per modum veneni*; they will *characteriſe* their *virulencies* and *exotic* adverſe *properties* upon the *parts* deſtinated for nutrition, alienate and *debilitate* them in their *functions* and *offices*; that the often uſe of them will *impair* Nature very much, though ſometimes,

ſometimes, for the preſent, *alleviation* to Nature does *accrue* from the *evacuation* procured, though by bad means. And thus much ſhall ſuffice to be ſaid of the *purgatives* and *purging* medicines, generally appointed and uſed for the *Scurvy*.

I intended to examine ſome other *medicines*, and thoſe called *ſpecificks*; ſet forth and *commended* in the *tracts* and *books* of this diſeaſe; to note ſome errors in thoſe *preſcripts*; and to ſhew the *inefficacy* and *improbability* (of ſome) to anſwer thoſe *purpoſes* they are *deſigned* for; as alſo their *inartificial* preparations and *incongruous* compoſitions, not *accommodated* by the beſt *rules* of the *pharmaceutick Art*; ſhewing that the *contrivers* of ſuch *medicines*, were not *pharmacopœians* and expert *Operators*; but have borrowed from *tradition*, and taken them up upon *truſt*, without due *examination* and *tryal*. But I defer this work until ſome perſon concern'd ſtands up in Vindication, and anſwers to what I have already objected.

CHAP. XII.

The Author's Method, and Medicines, for the Scurvy.

AS I have been always *dubious* and very *diffident* in relying on the *opinions* and determinations of *Authors* (though very *learned men*) without ſtrict *examination* in the *account* they give of diſeaſes: So likewiſe have I been very *jealous*, and much *unſatisfied* in *traditional medicines*; being oft *diſappointed* by *truſting* too much and relying on their common *fame* and *credit*, raiſed up and ſupported by *books* of great *eſteem* and general repute.

To avoid ſuch *diſappointments* and fruſtrated *expectations*; and that I might build upon, and *ſtabliſh* my ſelf, on my own *foundation* of *experiments* and *tryals*; I reſolved, and made it my *grand buſineſs* (as it is every *Phyſician's* duty) to ſearch into and *prove medicines*, by perſonal *inſpection* and *manual operation*: Knowing that no *skill* or *knowledg* of medicines,

dicines, is ſo *ſweet*, *certain*, and *ſatisfactory* to any man, nor ſo ſafe for the Patient, as that which is *gained* by *various proofs* and *tryals* from the Phyſicians own *hand* and under his own *eye*. And indeed there is no *true knowledg* in medicines, but what is acquired by a *diligent* and *conſtant* purſuit in this way: And he that thinks or *pretends* to have *skill* and a well-grounded *knowledg* in *medicines* by any other way than this; *deceives* himſelf and his Patients: for, if a *Phyſician* hath not been a *pharmacopœian*, proving and *ſatisfying* himſelf in the various *preparation* and *facture* of *medicines*; he is not, he cannot be *expert* and knowing in *medicines* as he ought; but *commits* great *errors* and *abſurdities*, in the deſigning and *appointment* of medicines.

And until a Phyſician betakes himſelf to this work, and makes it his chief buſineſs to attend Medicines; he ſhall very rarely perform great Cures, but ſhall often meet with great miſcarriages, and fruſtrated endeavours: nor ſhall he ever attain to the true knowledg, or acquirement of the moſt excellent Medicines and great

Arcana's of this Art, but by constancy and diligent practice in Medicinal Preparations. The neglect of this great work by Physicians of latter times, hath proved most pernicious to the sick, disadvantageous to themselves, and a great abatement to the former high repute of this Profession: all which is faithfully set forth to the World, in a late Tract, Entituled, *The Ancient and Modern Practice of Physick Examined, stated, and Compared, &c. wherein is declared the different Practice of the Ancients, from what it is in these dayes; and fully proved, that it is the duty of every Physician to prepare his own Medicines; also, that exquisite knowledge in Curing, depends principally thereon, and without it a Physician is insufficient in his profession, and a hazardous undertaker of the sick: that the Patients life and a Physicians reputation cannot be secure in the now common way of Apothecary Practice; that this is a slight and fallacious way, both in the designment and facture of Medicines: That the World hath been blinded, by a Combination between the Professors and Apothecaries, to carry on the practice of Physick for their mutual interest,*

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in the common lazy ignorant way; to the loss of thousands of lives, draining of purses, long languishing of many abused Patients, and the vilifying of this excellent Art. All this and much more is made out most reasonably, impartially and sincerely from the Author; attested by some learned grave testimonies, that are become Proselytes, and Assertors of the ancient true Practice: wherein all people may see their own interest, and great concerns when they stand in need of Physick, and the assistance of this Art: which information may save many lives, and rescue many languishing under their infirmities; if they be not willfully obstinate, and perverse against their own relief, in refusing such admonition and warning.

This I thought a very necessary insertion; to advertise the Reader, that hath a rational care and inquisitive regard to the safety of his life and health, in the matters of physick; that desires to deal warily and prudently therein; he may be much satisfied in consulting deliberately, and seriously perpending the several heads and arguments thereupon, distinctly laid down and prosecuted in that Book.

But to return to our preſent purpoſe: after the manner aforeſaid, by my conſtant labours for many years in the various preparation, and tryals of medicines; I happily acquired, and perfected ſome Medicines of worth and value, which hath *recompenced* my *time* and *trouble*; that *have*, and will *redound* to the *benefit* and *relief* of many. And finding the *Scurvy* to be the *foundation* of many *evils*, and *diverſe diſeaſes* to be rooted *here*, and take their *riſe* from *hence*; or much *aggravated* by it; and that in the cure of moſt *diſeaſes* in *Scorbutick* perſons, *ſpecial regard* muſt be had to the *Scurvy*, with potent *antiſcorbuticks*, or their *cures* will not *ſucceed* well: I therefore ſpent much *time* and *pains* in deſigning and *preparing* radical *medicines*, to anſwer the chief *intentions* of cure, in all *Scorbutick* caſes.

The *Antiſcorbutick* Medicines thus gradually *reformed* and *improved* by divers *repeated* tryals of *preparation*, and conſtant *uſe* in my *practice* (for many *years*) are theſe three ſeveral forms of Medicine; *Pills*, *Elixir*, and an *Extract*; being of different and *diſtinct operations*; anſwering and *accommodated*

commodated to the three *grand intentions* of cure, ſome of which, if not all *three*, are to be *proſecuted* in all *ſcorbutick caſes* and perſons: Theſe three *intentions* of *cure*, are different *claſſes* of *medicinal operation*, which being rightly purſued with *effectual medicines*, well *deſigned* and *prepared*, will profligate the *Scurvy*, and the various attending *ſymptoms*; reſtore Nature to the *integrity* of her *functions* and deſired *ſanity*; as much as every *individual* ſubject is capable to be *reduced*.

The firſt *Claſſis*, is *Purgation*, or *cleanſing*; to carry off that *Scorbutick impurity* or degenerate matter lodged in the *ſtomack* and *bowels* of the firſt *Region*: And for this purpoſe the *Pills* are deſigned to *operate*.

The ſecond *Intention* to be proſecuted; is *ſtrengthning* and *rectifying* of the *digeſtive* faculties, *debilitated*, or *alienated* from the *regularity* and conſtant *performance* of their *functions*: In vain it is to *cleanſe*, unleſs the *faculties* alſo be *reſtored* and *roborated*; and a good *craſis* of parts *ſetled* and *confirmed*, to *prevent* the like *indigeſted* or *depraved* matter, and *relap-*

ſing into the *old* condition. And to *perform* this work the *Elixir* was contrived: To *vigorate*, *re-inforce*, and quicken Nature, by *ſtrengthning* the *ſprings* or chief *movent principles* of the digeſtive *offices*.

The third, is *Depuration* of the *blood* and *nervous* juice, and *cleanſing* the whole *habit* of the *body*, which is *ſtained* with a *Scorbutick* impurity; ſending it forth by the *emunctories* and *vents* of the *body*, that Nature hath *provided* for that *purpoſe*, to *diſcharge* and *relieve* her Self. And to *perform* this *operation* the Antiſcorbutic *Extract* was formed, *adapted* and *fitted* for this *ſervice*; which *operates* chiefly by *Tranſpiration* and *Urine*. And this *medicine* I find ſo *uſeful* in *cures*; that many *ſymptoms*, ariſing from the *Scurvy*, are not *reached* and *ſubdued*, but by a medicine of this *operation*. Purging does *well*, and ought to be *premitted* in moſt *caſes* for carrying off all *morbifick matter* in the lower *region* of the *body*, and what is fit to paſs out by the *guts*: But the maſs of *blood* and *nervous liquor* being *tainted* and *impure*; the *habit* of the body and parts *irrigated* and *fed* from thence

thence are not *purified* and *cleansed* as they ought, but by *assisting* of *Nature* in her *daily work* of *transpiration*, and *sequestration* by the *urinary* ductures: And in *promoting* these natural *conveiances*, and sending forth by these *emunctories*; Nature is much *relieved* daily, and gets *victory* over many *infirmities*.

Now these three Antiscorbutic *Medicines*, (much altered and improved of late) I *use* after this *manner*, and in this *order* following; except, some *special* complication, or *peculiar propriety* of body, upon *examination* or *tryal*, do cause me to *alter* any thing in the medicine, or *vary* from the *usual* method or *course*; as sometimes it may *happen*.

First I appoint a dose of *Pills*; and intermit 2 *days*: then a *second dose*, and intermit 3 *days*: Then a *third dose*, and intermit 3 *days*: Continuing that *intermission* afterwards; or a *longer*, if the patient be weak. The common *dose* of these *Pills* I account to be three, for most *persons*: but, because *bodies* differ much in *purging*; for weak, lax, and soluble bodyes, two may be *sufficient*; others three; And some

ſome require four *Pills*; whoſe bodyes are more dry and coſtive, that are very *hard* to *work* upon: Therefore it is beſt to *try* the *body*, the firſt time with the leſſer doſe; and *encreaſe* afterwards as the *condition* of the *body* is to anſwer the intended purgation; aiming at ſix or ſeven *Stools* in a *day* and no more, which is *ſufficient*, and beſt. Theſe *Pills* are taken thus: One at *night* going to *bed*, having eaten but a *light ſupper* at ſix of Clock, before; The other next *morning* early, and may *ſleep* an hour after, but not *longer*, that the *operation* of the *medicine* may not be *checkt*. When they are up, to drink ſome warm *Poſſet-drink*, and between *ſtools*.

The ſecond *medicine* to be taken in this *courſe*, is the *Elixir*; to rectify and roborate the *parts* that are *dyſcraſied*, *languid* and *weak*, degenerated and fallen off from their *dutyes*, and *abated* in their *vigour* and *acuteneſs* of *ferment*: to *correct* the *errors* and defects of the *digeſtions*; That, as the *Pills* cleanſe and carry off *ſuperfluous* degenerate *matter*; ſo, this *medicine* I appoint to *ſtrengthen* and *fortify* the *faculties*, to reſtore and

confirm

confirm them in the *performance* of their *functions*; that Nature may not ſoon *relapſe* into the former *declining ſtate*. This *medicine* I give every *intermitting day* between Purging; ſo that the patient (though perhaps *weak* and *ſpent*) is not *impaired* in *ſtrength*, or brought *lower* by purging; but is daily more *enlivened*, *brisk*, and *chearful* by the aſſiſtance of this *medicine*. The *doſe* I allow of this *Elixir* to a *man* or *woman*, is 40 *drops*; but they begin with 20; and encreaſe 5 *drops* every *day* until they *aſcend* to 40, and there *continue* as the full doſe. It is taken in a *ſpoonful* of good *Canary*, or *Sherry*, *mornings*, faſting an *hour* and *half* after; and go abroad. And likewiſe at five of *Clock* afternoon.

The third *Antiſcorbutic* medicine is the *Extract*; which comes in courſe and is to be uſed after the third doſe of Pills is taken. This *Extract* I give to a *man* or *woman*, from a *dram* and half, to 2 *drams* and an half: which is from the quantity of a *Nutmeg* to a *Cheſnut*; beginning always with the leſſer *doſe*, and *increaſing* the *quantity* afterwards as the *body* requires. It is taken

taken upon a *knifes*-point, rolled in *Sugar*; or diſſolved in a little *White-wine*, or *Mace-Ale*; and a quarter of an *hour* after, to drink a draught of the ſame, and *ſleep*; being taken moſt commonly at night in bed; (and covered more then ordinarily) having eaten but a light ſupper at ſix a *clock*, before; or rather none which is better. And this *medicine* is thus uſed *twice* in the *week*; or *thrice*, every other *day*. But although this *Extract* may be taken thus at nights; yet I find by often experience that the Morning promotes the operation of this Medicine much better, and is more beneficial to thoſe whoſe occaſions permits them to chuſe this time, and ly in bed until the operation be finiſhed; only drinking now and then ſome warm drink, as *White-Wine*, or *Mace-Ale*.

In brief; Thoſe perſons that uſe theſe *Antiſcorbutick* medicines, do obſerve this order; except ſome ſpecial caſes, and ſingular propriety of body upon examination, or tryal, cauſeth alteration: Firſt, they begin with the *Scorbute Pills*, to cleanſe the center of the body, as the *ſtomack*, *guts*,

guts, meſentery, &c. The next day, and all the intermitting days between purging, they uſe the *Elixir*, to ſtrengthen the faculties and rectify the digeſtions: And after 3 *doſes* of *Pills* taken, they begin the Extract, to purify the blood, and cleanſe the habit of the body; continuing alſo the uſe of the *Pills* and *Elixir*, in their due order, by turns.

London,
From my Houſe in
Fetter-lane.

FINIS.